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George Peabody

REPORTS
OF THE
PEABODY MUSEUM

AMERICAN ARCHEOLOGY AND ETHNOLOGY

IN CONNECTION WITH

HARVARD UNIVERSITY.

VOLUME 1.

1868-1876.

CAMBRIDGE:

PRINTED BY ORDER OF THE BOARD OF OFFICERS.

1876.



James M. Smith

REPORTS
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY
IN CONNECTION WITH
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VOLUME I.

1868 - 1876.

CAMBRIDGE:
PRINTED BY ORDER OF THE BOARD OF TRUSTEES.
1876.

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PRINTED AT THE SALEM PRESS,
SALEM, MASS.

PREFATORY NOTE.

A CALL has been made upon the Public Institutions and Societies of the United States to furnish some account of their rise and progress, as well as of their existing condition, in a suitable shape for the Grand Centennial Exposition at Philadelphia.

As the most convenient mode of meeting this call, the Annual Reports of the Peabody Museum of American Archæology and Ethnology are here included in a single volume.

An Index to these Reports will be found at the end of the volume, which will render it easy to ascertain their contents.

An engraved portrait of George Peabody, from a plate kindly loaned for the purpose by the Massachusetts Historical Society, forms the appropriate frontispiece to the Reports, which tell of the success of his noble foundation.

At a later page of the volume will be found a portrait of Professor Jeffries Wyman, who was the Curator of the Museum from its establishment until his lamented death, and to whose scientific accomplishments and untiring labors it has owed so large a part of its success.

Seven of the nine Annual Reports contained in the volume were from his own pen, and his memory will ever be associated with that of Mr. Peabody in the creation of this first Archæological Museum in our land.



FIRST ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, FEB. 16, 1868.

CAMBRIDGE:
PRESS OF JOHN WILSON AND SON.
1868.



FIRST ANNUAL REPORT.

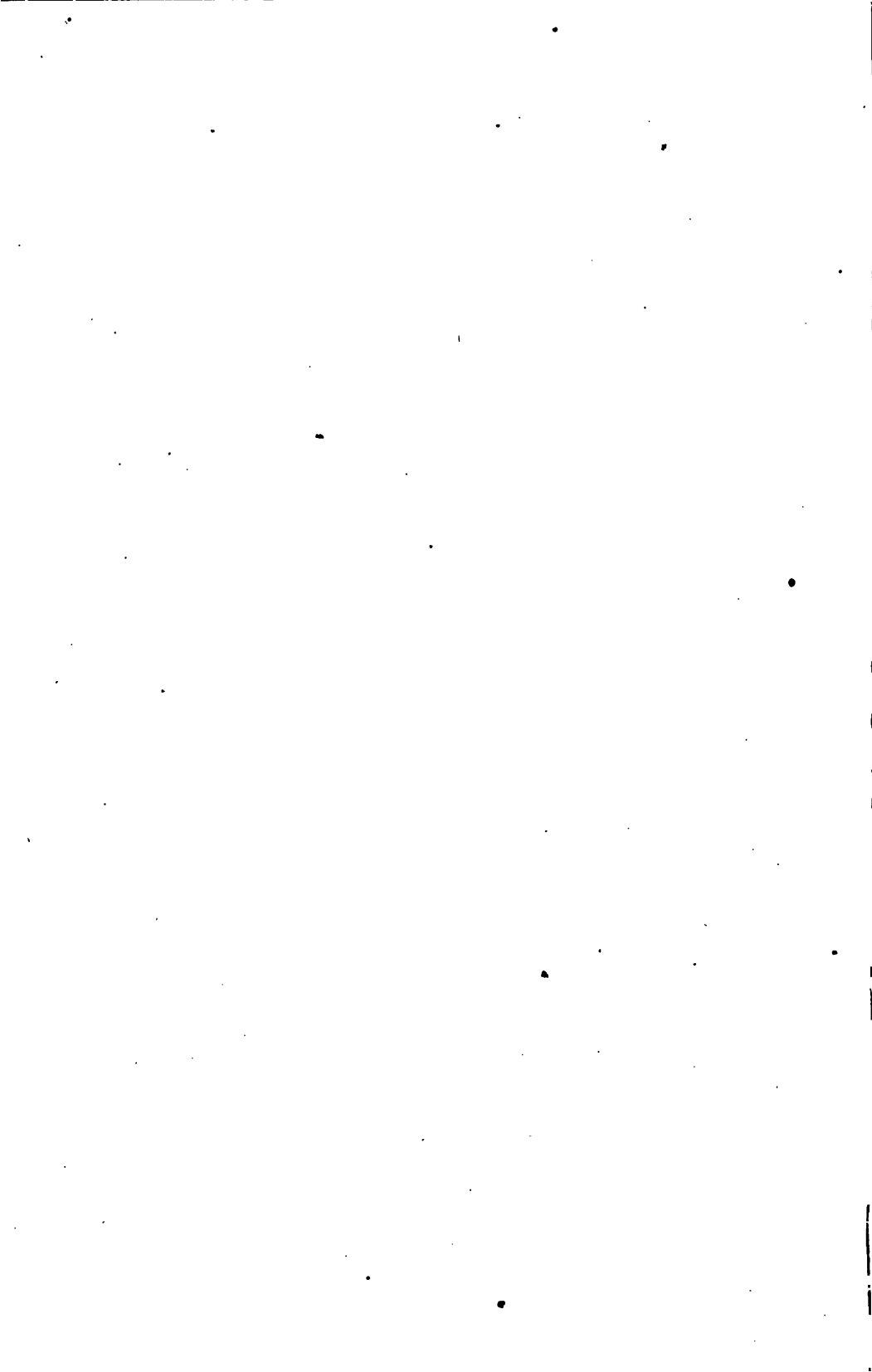
At a meeting of the Trustees, held at Cambridge, January 15, 1868, the Hon. STEPHEN SALISBURY presiding in the absence of the Hon. ROBERT C. WINTHROP, Chairman of the Board, the Reports of the Curator and Treasurer having been submitted, the following Report of the Trustees to the President and Fellows of Harvard College was adopted :—

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE.

The Trustees of the Peabody Museum of American Archæology and Ethnology hereby transmit to the President and Fellows of Harvard College the accompanying Reports of the Curator and Treasurer, as the First Annual Report of the Museum, required by the terms of the Instrument of Trust.

STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
GEO. PEABODY RUSSELL.

CAMBRIDGE, Jan. 15, 1868.



REPORT OF THE CURATOR.

*To the Trustees of the Peabody Museum of American Archæology
and Ethnology.*

THE Curator herewith respectfully submits his First Annual Report on the condition of the Museum.

I. COLLECTIONS.

On the 9th of November, 1866, a collection of various objects pertaining to the purposes of this Museum was begun, and temporarily deposited in one of the cases of the Museum of Comparative Anatomy, in Boylston Hall. The collection consisted of crania and bones of North-American Indians, a few casts of crania of other races, several kinds of stone implements, and a few articles of pottery, — in all, about fifty specimens. Of these, about one-half belonged to Harvard College, and, with the consent of the President, were transferred to this Museum; the others were from the collections of the Curator.

Soon afterwards, a printed circular, signed by the Executive Committee, and setting forth the objects and wants of the Museum, was widely distributed. This had the effect of interesting several persons in our behalf, and by whom valuable gifts were made. It is but a matter of justice to mention, that Dr. Henry C. Perkins, of Newburyport, well known for his zeal in the promotion of the interests of the natural sciences, was among the

first to actively aid us in carrying out our plans. To him we are largely indebted, not only for valuable contributions made by himself, but through his suggestion for many others from citizens of Newburyport and the adjoining towns. The aggregate collection, resulting from the gifts of Dr. Perkins, Messrs. John P. Pearson, Israel and David Balch, J. V. Jackman, Alfred Osgood, Charles R. Sargent, David R. Hoxie, Mrs. and Miss Curson, and others, has an especial value, since it largely represents the various kinds of stone implements found in the neighborhood of the Merrimac River, near its mouth.

The next important additions to our collections were made by the Trustees of the Boston Athenæum, and by the Trustees of the Massachusetts Historical Society, — both of these bodies having formally voted to place on deposit with us the ethnological specimens belonging to them, such objects no longer coming within the scope and designs of these institutions. The collection belonging to the Athenæum consists of one hundred and thirty, and that of the Historical Society of two hundred and thirty-one, specimens. Both contain valuable objects from various parts of the world, especially from the north-west coast of America, where they were mostly obtained during the latter part of the last and the beginning of the present century, and from the islands of the Pacific Ocean.

A third collection, consisting of seventy-five crania, chiefly of ancient Peruvians, and of a Peruvian mummy, was received from Mr. E. George Squier. This most valuable gift, with the few specimens already in our possession, makes a substantial beginning for a series of crania illustrating the anatomical characters of the races. In a letter referring to them, Mr. Squier states, that "what are called Peruvian skulls are by no means uncommon in cabinets, as they can be easily obtained from the Indian cemeteries in the loose sands of the coast. We have, however, a very few from the interior, where what we call Inca civilization had its origin and development. Those which I

obtained from the coast, as well as the interior, have this advantage: I obtained them with my own hands, and know about them; so that there can be no confusion about the localities. The skulls from the interior represent the Aymara on Lake Titicaca, as well as the Quichua, Cuzco or Inca families, and the coast skulls every coast family, from Tumbes to Atacama or from Ecuador to Chili." Mr. Squier has carefully noted on each skull the place from which it came. The number which we have already received from each of the principal cemeteries and the Chulpas or burial-towers is as follows: from Chulpas, 7; Cajamarquilla, 6; Casma, 13; Amacavilca, 17; Chimu, 11; Pachicamac, 6. The remainder are from Pisco, Cuzco, Puno, Nepeña, and Truxillo.

In addition to the above gift, Mr. Squier, in a letter addressed to the Hon. Robert C. Winthrop, Chairman of this Board, announces that he has presented to the Museum his collection of archæological and ethnological specimens, excepting those of gold and silver, and such others as have a high intrinsic value. By this munificent donation our Museum will become enriched with the means of illustrating on an extended scale some of the most important departments of the Ethnology of America.

On the 11th of May, 1867, the Smithsonian Institution presented a collection consisting of forty-three specimens, chiefly from the north-west coast of America, comprising various implements and articles of dress used by the Esquimaux and other tribes, obtained during the explorations in Arctic America by the late lamented Robert Kennicott, Messrs. Robert McFarlane, B. R. Ross, and others. Besides these, there are many implements from the islands in the Pacific Ocean, collected by the United-States Exploring Expedition, under Captain Wilkes.

On the 22d of June, a very valuable collection of Mexican antiquities, the gift of the Hon. Caleb Cushing, was received. It consists of one hundred and twenty-six specimens, comprising a large number of idols in stone and terra-cotta, also of pitchers,

vases, images, musical instruments, stamps, &c., all made of the last-mentioned material. They were obtained by Mr. Cushing when in command of one of the divisions of the army of the United States, while holding a position a few miles from the city of Mexico, soon after this place had been occupied by General Scott. They were mostly taken from excavations in the earth along the slopes of the valleys, and from places of burial; many of them are still more or less coated with the soil in which they were deposited. Nearly all are of ancient Aztec forms; but a few, though ornamented in the barbaric style, in their shapes closely resemble those of European origin. The collection is one of the most important we have received, and is valuable, not only as connected with the ideas and superstitions, but as representing a phase of one of the states of the plastic art, among the Aztecs.

Having learned from Mr. Horace Mann, of Cambridge, who had recently returned from a botanical excursion to the Sandwich Islands, that large numbers of skulls could be had on the southerly shore of Kauai, the Curator was able, through the kind aid of Mr. Sanford Dole, residing there, to obtain a series of twenty-one, all in good order, and collected by Mr. Dole in a single locality. He states, that, ten years ago, crania were much more abundant than they now are, large numbers having been carried away, and others destroyed by being trampled upon by cattle.

The age of these skulls is a matter of uncertainty. By some they are regarded as those of the slain after a great battle of which the natives have a tradition, and by others as the victims of a pestilence which prevailed soon after the discovery of the island. In either case, the most recent date which can be assigned to them is that of the period immediately following the discovery. For purposes of comparison, they are extremely valuable. These, added to the gift of Mr. Squier and to crania derived from other sources, make an aggregate

of one hundred and sixty specimens in the department of Crania of the human races.

The only additions thus far made to the Museum by purchase consist of two hundred and sixty-four antiquities from Northern Europe. These belong almost exclusively to the stone age; there being, besides articles of stone, a few in bronze. The collection was made chiefly on the Island of Rügen; but it also contains various objects from Sweden, Denmark, and Norway, and comprises arrow and spear points, chisels, gouges, axes, knives, "saws," "daggers," &c. Some of them are in a more or less rude state, having received their shapes through the process of "chipping;" others are more highly finished, and have well polished-edges.

The gifts mentioned above comprise the chief additions to the collections of the Museum. Besides these, however, various other gifts from different individuals have been received, and will be found enumerated in the following list of contributors:—

II. NAMES OF DONORS, AND AN ENUMERATION OF GIFTS TO THE MUSEUM.

| | |
|---|-----|
| Boston Athenæum | 130 |
| Massachusetts Historical Society | 231 |
| Smithsonian Institution | 43 |
| E. George Squier, New York | 76 |
| Hon. Caleb Cushing, Washington | 126 |
| Dr. E. H. Davis, New York | 5 |
| Dr. Henry C. Perkins, Newburyport | 5 |
| John P. Pearson, Newburyport | 36 |
| Israel and David Balch, Amesbury | 29 |
| J. V. Jackman, Newburyport | 10 |
| Alfred Osgood, Newburyport | 7 |
| Charles R. Sargent, Newburyport | 9 |
| Edward A. Hale, Newburyport | 7 |
| Charles Smith, Newburyport | 1 |
| Arthur Lunt, Newburyport | 1 |

| | |
|--|----|
| Charles M. Hodge, Newburyport | 1 |
| Amos Lee, Newburyport | 1 |
| William R. Little, Newburyport | 1 |
| Daniel H. Knight, Newburyport | 1 |
| Mrs. and Miss Curson, of Curson's Mills } | 50 |
| Mr. and Mrs. David R. Hoxie, ,, } | |
| Professor Paul A. Chadbourne, Williams College | 2 |
| Dr. Henry P. Walcott, Cambridge | 2 |
| Charles Cushman, Cambridgeport | 1 |
| Professor J. T. Rothrock, McVyetown, Penn. | 14 |
| Andrew D. Rodgers, Columbus, O. | 3 |
| William T. Brigham, Boston | 2 |
| Charles Follen Folsom, Brookline | 23 |
| J. Elliot Cabot, Brookline | 15 |
| George G. Lowell, Boston | 2 |
| Professor Daniel Treadwell, Cambridge | 1 |
| Lewis Vose, Milton | 1 |
| E. Neally, Concord | 37 |
| Horace Everett Ware, Milton | 2 |
| Dr. Martin Burton, Richmond, Va. | 1 |
| J. Wyman, Cambridge | 50 |

The gifts enumerated above, with the specimens obtained by purchase, make an aggregate of 1190. To these, however, should be added the results of the examinations made by the Curator of some of the shell-heaps on the Atlantic coast, representing twenty-five different localities, and comprising several thousand specimens, an enumeration of which is wholly unnecessary, though some notice of them will be taken further on.

III. LIBRARY.

Although the formation of a library comes within the plan of the organization of the Museum, no effort has thus far been made towards this end. During the coming year, it is proposed to appropriate a portion of the income for the purchase of books necessary for reference, confining ourselves chiefly to those bearing on ethnological and archæological subjects, which are not to be found in our public libraries.

The following gifts have been received :—

“*Kaladlit Okallurktualiait*,” or “*Grönlandsk Folkesagn*.” This is in Esquimaux and Danish, and bears the following inscription: The first book ever printed in Greenland. Written, printed, and bound by Esquimaux.” — “Presented to P. A. Chadbourne by Governor Rink at Godthavn, Greenland, 1860.” This was the first book presented to the Museum.

Catalogue of the Ward Series of Fossils, from the Hon. Robert C. Winthrop.

Races of Men, and their Geographical Distribution, by Dr. Charles Pickering.

Ethnography and Philology, by Horatio Hale.

These last two volumes form a part of quarto edition of the narrative of the United-States Exploring Expedition under Captain Wilkes. They are from the library of the late Hon. Edward Everett, and were presented by his son, William Everett, Esq.

IV. EXPLORATIONS.

With a view to carrying out the intentions of the founder, the Curator has, during the past year, examined several of the shell-heaps on the Atlantic coast, and also on the banks of the St. John's River in East Florida. An account of those in Maine and Massachusetts, some of which were examined in company with several members of the Essex Institute, has been published in the “*American Naturalist*” for January, 1868. The general results of the examination of these last-mentioned localities are as follows :—

That these heaps were made by the aborigines, there is the most unequivocal evidence, derived from the existence of charcoal in definite layers, burned bones, fragments of pottery, bones of edible animals, implements of stone and bone, and pieces of bone more or less wrought.

It is worthy of notice, that, while in these heaps implements of stone are quite rare, those of bone are not uncommon. Bone implements are most extensively used on the north-west

coast of America, and, as appears from the researches of Squier and Davis, have been found in some of the ancient mounds of the West. Those made by the aborigines of the Eastern States have hitherto attracted but little notice, and are not commonly seen in collections of American antiquities.

The condition of the bones of edible animals in these heaps strikingly resembles that from analogous deposits from the Old World. In both, bones of the deer and other large animals are broken up for the extraction of the marrow; while those of birds have the ends destroyed, the shafts remaining entire. This last circumstance, connected with the fact that the bones of dogs are associated with those of the other animals, renders it quite probable that the explanation given by Steenstrup applies here; viz., that it is to the dogs that this peculiar mutilation of the bones of birds is to be attributed. This view is the more probable, since marks such as the teeth of dogs would make, were found in some cases, though in others those of much smaller animals were seen.

The fragments of pottery were small, few in number, and, for the most part, but little ornamented, chiefly by indentations and rude tracings. In some cases, the figures on the surface were the result of the impression of a twisted cord in soft clay; a circumstance which has interest, since a similar mode was not only in use over a large portion of the United States, but has also been observed in the pottery of the shell-heaps of the Old World.

The shells of edible mollusks and of which the heaps are the most commonly composed, are those of the oyster, clam, and quahog; besides these, the shells of the scallop, whelk, and a few other species are more or less abundantly met with. The three first-mentioned kinds are not all found equally distributed through the different places; a single species, viz. the clam, in two instances, almost exclusively forming the whole deposit.

No satisfactory evidence was obtained to show that any of

these heaps could be referred to a very high antiquity. Although the remains of the elk, caribou, wild turkey, and great auk were discovered, yet it is a matter of history, that these animals have disappeared from the regions of the heaps since the coming of the white man. The caribou is still found within the confines of Maine; but the wild turkey has become virtually extinct in New England, the elk is not found nearer than the Alleghany Mountains, and the great auk has retreated beyond the confines of the United States. On the other hand, no articles of European make were discovered anywhere; and this circumstance, added to the fact that at least some of the heaps were covered with trees when the country was discovered, renders the supposition that they cannot be less than three centuries old quite reasonable. The bones were found to contain the usual amount of organic matter; a circumstance not inconsistent with great age, since the bones of the mastodon have been frequently discovered in the same condition.

During the months of February and March, 1867, two large shell-heaps were examined on the coast of East Florida. One of them underlies the old and new portions of Fernandina, on the northerly end of Amelia Island; and the other covers the summit of St. John's Bluff, on the right bank of the St. John's River, about five miles from its mouth. This last deposit has an extent of about three hundred feet along the shore, and was traced several hundred feet inland; but its precise limits were not determined, as it is covered with a dense forest growth. It consists entirely of oyster-shells of a large size, which, in some places, form a deposit between three and four feet in thickness. The bluff is constantly undermined at its base, and, with the shell-heap, is fast disappearing. Portions of the Confederate earthworks, thrown up during the Rebellion, have already been carried away; and it is highly probable that the portion of the bluff already destroyed, was as large as that which still remains: if so, the heap must have covered many acres of surface. In

addition to the above, oyster-shells are scattered far and wide over the adjoining lands, and, with them, fragments of pottery can be found at almost any point. Both at Fernandina and St. John's Bluff, pieces of pottery, mingled with the shells in large quantities, indicate that the origin of these deposits is due to the aborigines.

The most important explorations were made upon the banks of the St. John's River at various points, from Palatka, one hundred miles from the mouth, to Rattlesnake Hammock, at the outlet of Salt Creek, somewhat more than one hundred and fifty miles above Palatka. Twenty of these shell-heaps were personally examined. The most remarkable feature which they present when compared with other deposits of like nature is, that they are composed entirely of shells belonging to fresh-water species, and of the following genera; viz., *Paludina*, *Ampullaria*, and *Unio*, the first forming the largest part of each mound. The different heaps bear a close resemblance to each other, though there is some variety in the extent to which the different species are distributed through them. The sizes and shapes of them are variable. Some form low circular mounds, twenty-five to thirty feet in diameter, as in the neighborhood of Oldtown; others are of much larger dimensions, as at Black Hammock, just above the outlet of Lake Jessup. At this place there are several different deposits; but the largest has a length of nine hundred feet, a breadth of from one hundred to one hundred and fifty feet, and in thickness measures from a few inches to four feet. The mound at Old Enterprise, Lake Monroe, consisting wholly of shells with little or no intermixture of sand, forms a bluff fifteen feet high, has a front of one hundred and sixty feet along the shore, and extends five hundred feet inland, where it is crossed by another ridge of shells, also five hundred feet in length. Both this and the heaps at Black Hammock, must have been much more extensive than now, as they have been largely undermined by

the water, and the debris have been washed away. They have the appearance of lacustrine and fluvial deposits, and, for the most part, have been considered as such.

That these heaps are artificial deposits, is obvious from the following facts: In many instances, they form somewhat abrupt oval mounds, resting on the borders of swamps; the surrounding region being submerged for a large part, if not the whole, of the year. In others, they are on the dry land, resting on the sand, and show no signs of being a portion of a deposit extending more widely over the surface. Excavations, more or less extensive, were made in all of them; and in some cases, as at Lake Harney, Black Hammock, and Oldtown, pits were sunk through the whole thickness of the deposit, and charcoal, with the bones of the deer, opossum, raccoon, and various edible birds and fish, mingled with an abundance of the fragments of pottery, were discovered. The bones of the deer were broken up in precisely the same manner as has already been described in speaking of the shell-heaps of Maine and Massachusetts, and as has been observed in those of the Old World. But few flint implements were actually found in the shell-heaps. At Lake Monroe, however, large numbers were picked up along the shore, near Old Enterprise; and some of them had obviously been washed out of the mound.

At Horse Landing, about twenty-five miles above Palatka, the shells have all the appearance of a tertiary deposit, are compactly pressed together, and are much more decomposed than in any other locality. The indications of man were far less abundant; no pottery was found except near the surface, but charcoal was seen at all depths; and near the middle a piece of worked shell, with a hole drilled through the centre, was discovered. The bones of animals, as of the deer, though scarce, were broken up, as in the other deposits. The most important discovery, however, was made by my fellow-traveller, Mr. G. A. Peabody; viz., of a piece of worked flint, from the sand

beneath the mound, and which had not been displaced, though partially exposed by the undermining action of the river. Thus the artificial origin of this mound was placed beyond doubt.

There is one mound, a few miles below Osceola, consisting of precisely the same materials as the others, and where, from the undermining action of the river, and an extensive series of pits on the top, which had been dug for military purposes during the Rebellion, unusually good opportunities for making examinations were afforded. In this place, no satisfactory proofs of the presence of man at the time the mound was formed, were detected. A few broken bones of the deer, and other edible animals, were found in the interior, and on the surface a few fragments of pottery, which last may have been left there long after the mound was finished. It would therefore seem that this mound was either built without being a camping-place, or else is to be referred to some other than a human origin.

Of the shells entering into the formation of the mounds, the Unios are well known to have been used as food by the Indians, and are occasionally so used by the whites. We met with some who assured us they were not bad articles of diet. The Paludinas and Ampullarias are not known to have been eaten, though there is no evidence to show that they are unsuitable as food. The only theory for accounting for the mounds referred to above, except the last, is, that these shells were brought together for food, and, after the animals were removed, the former were thrown down; that the cooking of food was carried on at the same place, and, as the shells accumulated, the old fireplaces and the fragments of broken pots were covered up.

All attempts to determine the age of the mounds proved unsatisfactory. The following facts are, however, of interest, as bearing upon the subject:—

1st, It is the uniform testimony of those who have, within recent years, been in communication with the Seminoles, that no traditions of the origin of these heaps has come down to them:

they attribute them to a former race, who preceded them in the occupation of the peninsula of Florida.

2d, The age of some of the trees, as of the live-oaks on the mounds in the woods near Blue Spring, and on the mound below Lake Dexter, indicates that the mounds have not been added to for more than three hundred years, or since the discovery of the country. On examining the earth held by the roots of one of these ancient trees, measuring between five and six feet in diameter and which had been long ago overturned, fragments of pottery were discovered ; and, on making an excavation into the shells beneath the spot where the trunk of the tree rested when in its natural position, other fragments were found. At another place, a flint implement was found, while making an excavation under like circumstances.

3d, The condition of the bones, especially at Old Enterprise and at Horse Landing, was that of fossils, the animal matter having entirely disappeared ; and, in many cases, bones and shells were cemented together, and crusted over by calcareous deposits, probably resulting from the disintegration of the shells which surrounded them.

Separate collections of materials and objects, from nearly all the above shell-heaps, have been carefully made, and are deposited in the cases of the Museum.

Several burial-mounds were examined at various points, particularly at Salt Lake on the road to Indian River, at Lake Harney, and at Black Hammock ; but no results of importance were arrived at. It appears that the Seminoles referred these mounds to the same race as the builders of the shell-heaps, having themselves no traditions with regard to them. The bones they contain are nearly all broken, and appear to be the fragments of skeletons which had been buried or allowed to go to pieces elsewhere, and subsequently gathered together and buried without order in a common heap. The only instances where the bones had their natural relative positions were obvi-

ously from intrusive burials. Such was the case at Black Hammock, where glass beads and an iron spear-point were found associated with the bones. Collections of bones, and a few crania, all that were found from these mounds, have been preserved; some of which present marked anatomical characters. There are many other burial mounds in different parts of East Florida which we did not visit, and they are reported to contain skeletons which it would seem were buried while the bodies were recently dead.

A full description of the results of the explorations described above, is in preparation, and will be printed with suitable illustrations.

Various plans for explorations during the coming year are under consideration. As soon as the season will allow, further examinations of the shell-heaps on the Atlantic coast will be made. The Chairman of the Board, the Hon. Robert C. Winthrop, now in Europe, has been desired and authorized by the Trustees to obtain, as far as practicable, a series of specimens illustrative of the age of the lake-dwellings in Switzerland, and of such other objects as have a bearing upon the earliest known condition of the human race. Dr. H. Berendt, now in New York, who has been for several years engaged in archaeological and ethnological investigations in Central America, proposes soon to return there, for the purpose of completing his work; and he has very kindly offered to obtain for the Museum collections of antiquities, crania, and other objects of ethnological or archaeological value. The Executive Committee have made an appropriation, as will be seen by the Treasurer's Report, to enable Dr. Berendt to carry his plan into execution.

JEFFRIES WYMAN, *Curator*.

REPORT OF THE TREASURER.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology in connection with Harvard University.

The Treasurer respectfully submits his First Annual Report.

The condition and the amount of the funds of the Peabody Museum are exhibited in detail in the accounts hereunto annexed. On the 2d of November, 1866, George Peabody, Esq., delivered to the Trustees 150 Massachusetts Five per cent. Specie Bonds of \$1,000 each, as the foundation of the Peabody Museum; and on Dec. 27, 1866, Mr. Peabody paid to the Treasurer \$387.50, for adjustment of income on said bonds to Jan. 1, 1867. According to the instruction of Mr. Peabody's instrument of trust, these bonds and this payment for the adjustment of income were apportioned to the several funds.

The abstract of the several accounts is as follows:—

The Collection Fund is charged with

| | |
|--|-------------|
| 45 Massachusetts Five per cent. Specie Bonds | \$45,000.00 |
| Mr. Peabody's payment to adjust income | 202.50 |
| Income of 45 Massachusetts Five per cent. Specie Bonds | 3,051.56 |
| Income of 45 Massachusetts Five per cent. Specie Bonds of Professor Fund, the Professorship not being filled | 3,051.56 |
| Income of investment by Treasurer | 66.50 |
| | \$51,372.12 |

This Fund is credited with

| | |
|---|-------------|
| Payments for collections of Antiquities, &c. | \$1,486.12 |
| 45 Massachusetts Five per cent. Specie Bonds | 45,000.00 |
| Note of Worcester and Nashua Railroad Company (balance) | 1,898.18 |
| Note of Worcester and Nashua Railroad Company | 2,992.87 |
| | \$51,372.12 |

The Professor Fund.

| | |
|--|-------------|
| As the Professorship is not filled, this Fund contains only 45 Massachusetts Five per cent. Specie Bonds | \$45,000.00 |
|--|-------------|

The Building Fund is charged with

| | |
|--|-------------|
| 60 Massachusetts Five per cent. Specie Bonds | \$60,000.00 |
| Received for adjustment of income | 185.00 |
| Income on above 60 Massachusetts Bonds | 4,068.75 |
| Income from Treasurer's investments | 81.95 |
| | \$64,285.70 |

And this Fund is credited with

| | |
|---|-------------|
| 60 Massachusetts Five per cent. Specie Bonds | \$60,000.00 |
| 8 United-States Five-twenty Six per cent. Bonds | 2,183.25 |
| 8 City of Worcester Six per cent. Sewage Bonds | 2,100.00 |
| Cash in the hands of the Treasurer | 2.45 |
| | \$64,285.70 |

The Investments of the

| | |
|--|--------------|
| Collection Fund, at par, amount to | \$49,886.00 |
| Professor Fund, at par | 45,000.00 |
| Building Fund, at par | 64,152.45 |
| Aggregate of Funds | \$159,038.45 |

STEPHEN SALISBURY, *Treasurer.*

Mr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archaeology and*

1866.

For Collection Fund.

| | | | |
|----------|--|----------|--|
| Dec. 27. | To received of George Peabody, Esq., for adjustment of income to Jan. 1, 1867, on 45 Massachusetts Coast Defence Five per cent Specie Bonds, \$2.25 on each Bond | \$101.25 | |
| Dec. 27. | To received of George Peabody, Esq., for adjustment of income to Jan. 1, 1867, on 45 Massachusetts Coast Defence Five per cent Specie Bonds, of Professor Fund, \$2.25 for each Bond, Professorship not being filled | 101.25 | |

1867.

| | | | |
|----------|--|------------|----------|
| July 1. | To received Six Months' Interest on 45 Massachusetts Coast Defence Five per cent Bonds, in Gold | \$1,125.00 | |
| July 1. | To received on sale of above \$1,125 in Gold, at .38 | 427.50 | 1,552.50 |
| July 1. | To received Six Months' Interest on 45 Massachusetts Coast Defence Five per cent Bonds, of Professor Fund, in Gold | 1,125.00 | |
| July 1. | To received on sale of above \$1,125 in Gold, at .38 | 427.50 | 1,552 50 |
| July 12. | To received part payment of Note of Worcester and Nashua Railroad Co., 1st instant | | 1,000.00 |
| Nov. 16. | To received part payment of Note of Worcester and Nashua Railroad Co., July 1 | | 852.50 |

1868.

| | | | |
|---------|---|----------|----------|
| Jan. 1. | To received Interest to date on balance on Note of Worcester and Nashua Railroad Co., July 1, 1867 | | 66.50 |
| Jan. 2. | To received Six Months' Interest on 45 Massachusetts Coast Defence Five per cent Bonds, in Gold | 1,125.00 | |
| Jan. 2. | To received on sale of above \$1,125 in Gold, at .38½ | 374.06 | 1,499.06 |
| Jan. 2. | To received Six Months' Interest on 45 Massachusetts Coast Defence Five per cent Bonds of Professor Fund, in Gold | 1,125.00 | |
| Jan. 2. | To received on sale of above \$1,125 in Gold, at .38½ | 374.06 | 1,499.06 |

1866.

For Building Fund.

| | | | |
|----------|--|--|--------|
| Dec. 27. | To received of George Peabody, Esq., for adjustment of income to Jan. 1, 1867, on 60 Massachusetts Coast Defence Five per cent Specie Bonds, \$2.25 on each Bond | | 185 00 |
|----------|--|--|--------|

1867.

| | | | |
|---------|---|----------|----------|
| July 1. | To received Six Months' Interest on above 60 Massachusetts Coast Defence Five per cent Bonds, in Gold | 1,500.00 | |
| July 1. | To received for sale of above \$1,500 in Gold, at .38 | 570.00 | 2,070.00 |

1868.

| | | | |
|---------|---|----------|----------|
| Jan. 2 | To received Six Months' Interest on 60 above Massachusetts Coast Defence Five per cent Bonds, in Gold | 1,500.00 | |
| Jan. 2. | To received from sale of above \$1,500 in Gold, at .38½ | 498.75 | 1,998.75 |
| Jan. 2. | To received for Six Months' Interest on \$2,050 United States Six per cent Five-twenty Bonds, to 1st instant, in Gold | 61.50 | |
| Jan. 2. | To received for sale of above \$61.50, at .38½ | 20.45 | 81.95 |

\$12,010.32

Ethnology in connection with Harvard University, in Annual Account, Jan. 9, 1888. &c.

| | |
|---------------------------|---|
| 1866. | |
| Nov. 23. | By paid Thomas Groom & Co.'s bill of Treasurer's Account Book \$8.87 |
| Dec. 21. | By paid Hooper, Lewis, & Co.'s bill of paper for Catalogue 10.00 |
| Dec. 11. | By paid J. Ford & Son's bill for printing Circulars 4.00 |
| 1867. | |
| May 30. | By paid William H. Forbes & Co.'s bill of Acknowledgments 50.00 |
| June 22. | By paid F. P. Oliver's bill for Treasurer's Cash Box, \$10.00, and lettering, \$1.25 11.25 |
| July 1. | By paid Note of Worcester and Nashua Railroad Co., on demand, with interest 3,245.68 |
| July 15. | By paid Charles Claus for Archaeological Specimens, delivered to Professor Wyman 1,000.00 |
| Nov. 15. | By paid Dr. Berendt for expenses of Archaeological Collections in Central America 352.50 |
| 1868. | |
| Jan. 6. | By paid George H. Dickerman's bill for Paper Boxes 20.00 |
| Jan. 6. | By paid John Ford & Son's bill of Circulars, &c. 14.00 |
| Jan. 6. | By paid Professor Wyman's bill of Catalogues, &c. 16.00 |
| Jan. 7. | By paid Note of Worcester and Nashua Railroad Co., on demand, with interest 2,992.87 |
| 1867. | |
| <i>For Building Fund.</i> | |
| July 3. | By paid 8 United-States Five-twenty Bonds, of July 1, 1867; viz., Nos. 550 and 558, \$1,000 each, No. 251, \$50, interest after 1st instant \$2,050.00 |
| July 3. | By premium on above, 6½ per cent 183.25 |
| | 2,183.25 |
| 1868. | |
| Jan. 3. | By paid for City of Worcester Sewage Bonds, \$1,000 each, No. 66 and 67, and \$100, No. 68, dated June 15, 1867, for ten years, interest semi-annually, June and December, from this day 2,100.00 |
| Jan. 9. | By Cash in the hands of the Treasurer 2.45 |

\$12,010.32

INVESTMENTS.

For Collection Fund.

| | |
|--|-------------------|
| 45 Bonds, being part of 150 Massachusetts Coast Defence Five per cent. Specie Bonds, dated July 1, 1863, redeemable July 1, 1888, Nos. 489 to 638, both inclusive, each Bond for \$1,000, with 38 attached coupons from July 1, 1867, to July 1, 1888; given by George Peabody, Esq., at par | \$45,000.00 |
| Note of Worcester and Nashua Railroad Company, July 1, 1867, on demand, with interest from 1st inst. on balance . . | 1,898.18 |
| Note of Worcester and Nashua Railroad Company, Jan. 7, 1867, on demand, with interest | 2,992.87 |
| | <hr/> \$49,886.00 |

For Professor Fund.

| | |
|--|-----------|
| 45 Bonds, being part of 150 Massachusetts Coast Defence Five per cent. Specie Bonds, dated July 1, 1863, redeemable July 1, 1888, Nos. 489 to 638, both inclusive, each Bond for \$1,000, with 38 attached coupons from July 1, 1867, to July 1, 1888; given by George Peabody, Esq., at par | 45,000.00 |
|--|-----------|

For Building Fund.

| | |
|--|--------------------|
| 60 Bonds, being part of 150 Massachusetts Coast Defence Five per cent. Specie Bonds, dated July 1, 1863, redeemable July 1, 1888, Nos. 489 to 638, both inclusive, each Bond for \$1,000, with 38 attached coupons from July, 1867, to July 1, 1888; given by George Peabody, Esq., at par | \$60,000.00 |
| 3 United-States Five-twenty Bonds of July 1, 1867, viz., Nos. 550 and 558, \$1,000 each; No. 251, \$50; par, interest from Jan. 1, 1868 | 2,050.00 |
| City of Worcester Sewage Bonds, Nos. 66 and 67, \$1,000 each; No. 68, \$100; dated June 15, 1867, due in ten years, interest from 3d Jan. 1868, par | 2,100.00 |
| Cash in hands of Treasurer | 2.45 |
| | <hr/> 64,152.45 |
| | <hr/> \$159,038.45 |

STEPHEN SALISBURY, *Treasurer.*

CAMBRIDGE, Jan. 15, 1868.

I hereby certify that I have examined and audited the foregoing accounts, and find the same correct. Also, that I have examined and counted the Bonds and Coupons above described, and found them to be as stated; and that I find in the hands of the Treasurer proper vouchers for all the expenditures.

GEO. PEABODY RUSSELL, *Auditing Committee.*

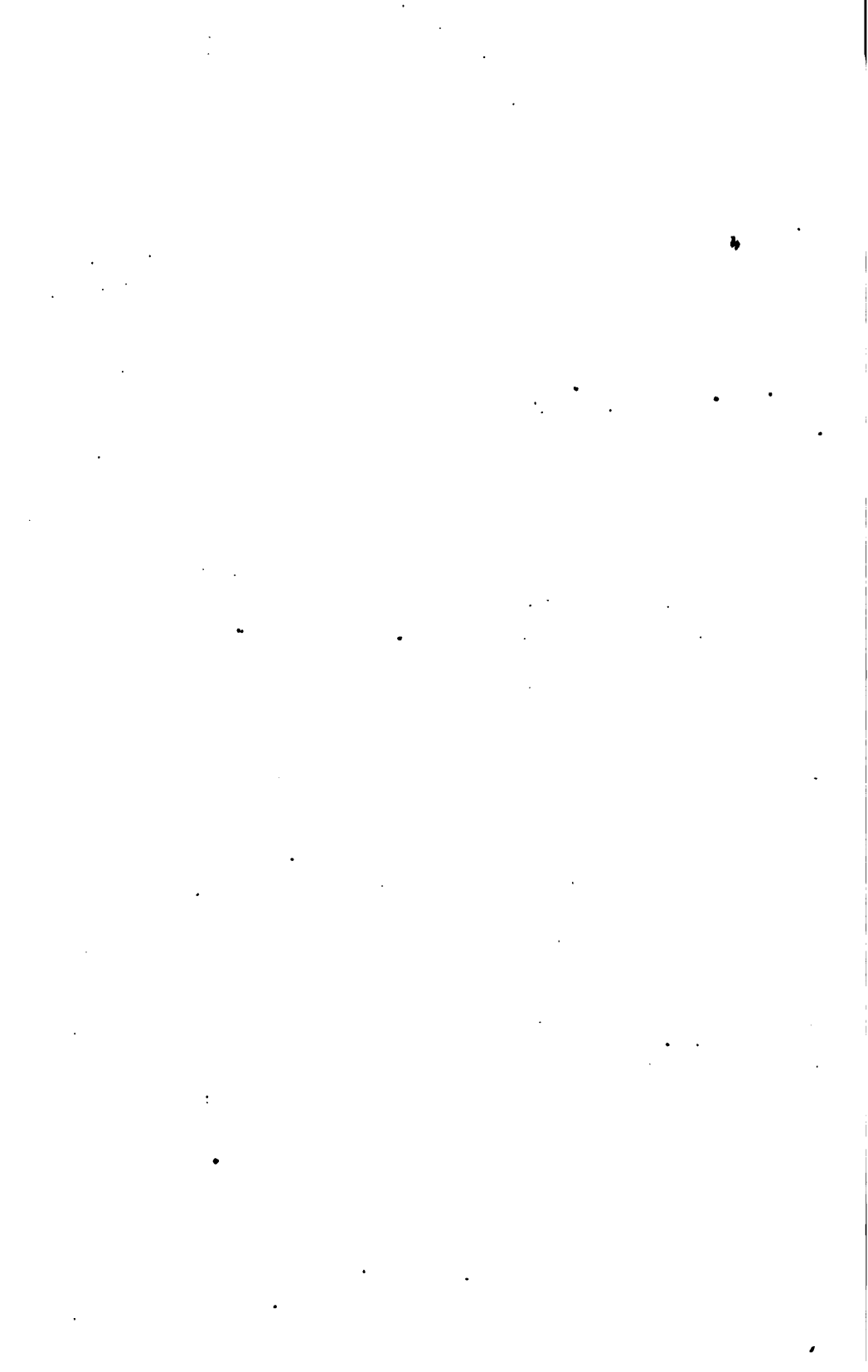
DEATH OF THE HON. FRANCIS PEABODY.

At the annual meeting of the Trustees, at which the foregoing reports were presented, being their first meeting since the death of the Hon. FRANCIS PEABODY, it was unanimously —

Voted, That the Trustees of the Peabody Museum of American Archæology and Ethnology hereby place upon record an expression of their sense of the great loss they have sustained in the death of their late associate, the Hon. FRANCIS PEABODY, of Salem.

Voted, That they would also add their testimonials of profound respect for his many excellences of character, for his great worth as a citizen, and for his earnest and efficient aid, rendered through many years, in the promotion of liberal studies and useful knowledge.

GEORGE PEABODY RUSSELL,
Secretary.



FOUNDATION.

I.

LETTER OF GIFT.

GEORGETOWN, Oct. 8, 1866.

To the Hon. Robert C. Winthrop, His Excellency Charles Francis Adams, Francis Peabody, Stephen Salisbury, Asa Gray, Jeffries Wyman, and George Peabody Russell, Esqs.

GENTLEMEN,— Accompanying this letter, I inclose an instrument giving to you one hundred and fifty thousand dollars (\$150,000), in trust for the foundation and maintenance of a Museum and Professorship of American Archæology and Ethnology in connection with Harvard University.

I have for some years had the purpose of contributing, as I might find opportunity, to extend the usefulness of the honored and ancient University of our Commonwealth; and I trust that in view of the importance and national character of the proposed department, and its interesting relations to kindred investigations in other countries, the means I have chosen may prove acceptable.

On learning of your acceptance of the trust, and of the assent of the President and Fellows of Harvard College to its terms, I shall be prepared to pay over to you the sum I have named.

Aside from the provisions of the instrument of gift, I leave in your hands the details and management of the trust; only suggesting, that, in view of the gradual obliteration or destruction of the works and remains of the ancient races of this continent,

the labor of exploration and collection be commenced at as early a day as practicable ; and also, that, in the event of the discovery in America of human remains or implements of an earlier geological period than the present, especial attention be given to their study, and their comparison with those found in other countries.

With the hope, that the Museum, as thus established and maintained, may be instrumental in promoting and extending its department of science, and with fullest confidence, that, under your care, the best means will be adopted to secure the end desired,

I am, with great respect, your humble servant,

GEORGE PEABODY.

II.

INSTRUMENT OF TRUST.

I do hereby give to Robert C. Winthrop of Boston, Charles Francis Adams of Quincy, Francis Peabody of Salem, Stephen Salisbury of Worcester, Asa Gray of Cambridge, Jeffries Wyman of Cambridge, and George Peabody Russell of Salem, all of Massachusetts, the sum of one hundred and fifty thousand dollars, to be by them and their successors held in trust, to found and maintain a Museum of American Archæology and Ethnology, in connection with Harvard University, in the City of Cambridge, and Commonwealth of Massachusetts.

Of this sum I direct that my said Trustees shall invest forty-five thousand dollars as a fund, the income of which shall be applied to forming and preserving collections of antiquities, and objects relating to the earlier races of the American Continent, or such (including such books and works as may form a good working library for the departments of science indicated) as

shall be requisite for the investigation and illustration of Archaeology and Ethnology in general, in main and special reference, however, to the aboriginal American races.

I direct that the income of the further sum of forty-five thousand dollars shall be applied by my said Trustees to the establishment and maintenance of a Professorship of American Archaeology and Ethnology in Harvard University; said professor shall be appointed by the President and Fellows of Harvard College, with the concurrence of the Overseers, in the same manner as other professors are appointed, but upon the nomination of the founder or the Board of Trustees. He shall have charge of the above-mentioned collections, and shall deliver one or more courses of lectures annually, under the direction of the Government of the University, on subjects connected with said department of science.

Until this professorship is filled, or during the time it may be vacant, the income from the fund appropriated to it shall be devoted to the care and increase of the collections.

I further direct that the remaining sum of sixty thousand dollars be invested and accumulated as a Building Fund, until it shall amount to at least one hundred thousand dollars, when it may be employed in the erection of a suitable fire-proof museum building, upon land to be given for that purpose, free of cost or rental, by the President and Fellows of Harvard College; the building, when completed, to become the property of the College, for the uses of this trust, and none other.

The Board of Trustees I have thus constituted shall always be composed of seven persons: and it is my wish that the office of Chairman be filled by Mr. Winthrop; in the event of his death or resignation, by Mr. Adams; and so successively in the order I have named above. The Trustees shall keep a record of their doings, and shall annually prepare a report setting forth the condition of the trust and funds, and the amount of income received and paid out by them during the previous year.* This

report, signed by the Trustees, shall be presented to the President and Fellows of the College.

In the event of the death or resignation of Mr. Winthrop, I direct that the vacancy in the number of the Board be filled by the President of the Massachusetts Historical Society, who *ex officio* shall for ever after be a member of the Board. In the event of the death or resignation of Mr. Peabody, the vacancy to be filled by the President of the scientific body now established in the city of Salem, under the name of the Essex Institute; of Mr. Salisbury, by the President of the American Antiquarian Society; of Professor Gray, by the President of the American Academy of Arts and Sciences; and of Professor Wyman, by the President of the Boston Society of Natural History, — all of whom shall for ever after be *ex officio* members of the Board.

Should the President of either of the societies I have named decline to act as a Trustee, such vacancy, and all other vacancies that may occur in the number of the Trustees, shall be filled by the remaining Trustees, who shall, within a reasonable time, make the appointment or appointments.

I give to my said Trustees the liberty to obtain from the Legislature an act of incorporation, if they deem it desirable; to make all necessary by-laws, to appoint a Treasurer, and to enter into any arrangements and agreements with the Government of Harvard College, not inconsistent with the terms of this trust, which may, in their opinion, be expedient.

(Signed)

GEORGE PEABODY.

GEORGETOWN, Oct. 8, 1866.

SECOND ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, JAN. 11, 1869.

BOSTON:
PRESS OF A. A. KINGMAN,
(COR. BERKELEY AND NEWBURY STS.)
1869.

SECOND ANNUAL REPORT.

AT a meeting of the Trustees, held in Boylston Hall, the chairman, the Hon. ROBERT C. WINTHROP, presiding, the Reports of the Curator and Treasurer having been submitted, the following Report of the Trustees to the President and Fellows of Harvard College was adopted:—

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archaeology and Ethnology herewith respectfully transmit to the President and Fellows of Harvard College the accompanying Reports of their Curator and Treasurer, as the Second Annual Report of the Museum, required by the terms of the Instrument of Trust.

It may be proper for the Trustees, in submitting this Report, to say, in explanation of the policy they have thus far pursued, that in the original Instrument of Trust three distinct duties are assigned to them by the Founder :

1. The forming and preserving collections of Antiquities :
2. The appointment of a Professor, who shall have charge of the collections, and deliver lectures on subjects connected with them :
3. The erection of a suitable Museum.

This last work, it will be remembered, is not to be under-

taken until the sum devoted to it (\$60,000) shall amount, by investment and accumulation, to at least \$100,000 ; while it is also expressly provided, in regard to the second duty assigned to them, that "until the Professorship is filled, the income from the fund appropriated to it shall be devoted to the care and increase of the Collections."

The Trustees, in the exercise of the discretion thus committed to them, have thought best to defer the nomination of a Professor until the Building Fund shall have reached the prescribed amount ; or, at least, until the Collections shall be sufficient to require the full care of such an officer, and to furnish the subject and illustrations of the proposed lectures.

ROBERT C. WINTHROP.
CHARLES FRANCIS ADAMS.
STEPHEN SALISBURY.
JEFFRIES WYMAN.
GEO. PEABODY RUSSELL.
HENRY WHEATLAND.

CAMBRIDGE, Jan. 11, 1869.

NOTE. — Prof. ASA GRAY, one of the Trustees, was absent in Europe at the time of the meeting.

REPORT OF THE CURATOR.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology.

THE Curator respectfully submits the following report on the condition of the property of the Museum under his charge.

I. COLLECTIONS.

Since the last annual meeting, large additions have been made to the collections, amounting in all to between four and five thousand specimens. For the acquisition of the most valuable of these, the Museum is indebted to our Chairman, the Hon. Robert C. Winthrop, who visited Europe during the past year, and who was empowered by a special vote of the trustees to obtain such collections as he might think desirable for our purposes. Two very important ones were purchased, viz., that of Gabriel de Mortillet, made in France, which was received during the summer, and that of Wilmot J. Rose, made in Denmark, which has only quite recently arrived.

The owner and maker of the first of these collections, having become officially connected with the great national Museum of Archaeology at St. Germain, was prevented by the regulations which govern public museums in France, from retaining a private collection; consequently that now in our possession was sold. From the circumstances under which it was made, and the eminence of the archæologist by whom the objects were brought together, it is entitled to the fullest confidence for authenticity; and, from the favorable opinion of it expressed by competent scientific judges, it must be considered as a most valuable accession to our resources.

In addition to the services of the Chairman in the purchase of this collection, it is a matter of justice that those of Mr. Jules Marcou, the eminent French geologist, should be gratefully remembered.

The Mortillet collection chiefly illustrates certain recognized periods in the early condition of the human race in France, comprising, however, various objects belonging to some of the analogous periods from other countries, especially Switzerland and Italy. The number of specimens cannot be precisely stated, but from a careful estimate we are justified in saying that it will not fall short of three thousand. A printed synopsis accompanies it, with marginal references to the various publications in which many of the objects have been described, and some of them figured. All the specimens are properly labelled, and on the label the source from which they came, and the authority indicated.

The objects are arranged in two principal classes, viz., those of the *Age of Stone* and those of the *Age of Metals*, and both further subdivided into several subordinate groups. The whole series naturally begins with the remains of man from the quaternary deposits, comprising those of the period of unpolished stone implements. They were chiefly obtained from St. Acheul, Abbeville and Amiens, in the now classical valley of the Somme, the scene of the original investigations of Boucher de Perthes, the founder of prehistoric archæology.

With the worked flints from these and other localities of a similar age, are associated the remains of the northern elephant or mammoth, the reindeer and the extinct ox. From the French caves, especially the remarkably ones in Dordogne, there are large numbers of stone implements, flakes, worked bones and antlers, associated with the remains of the great cave bear (*Ursus spelæus*) and the reindeer. The conglomerate from the floors contains an abundance of flakes, broken bones and charcoal, tending to show that these caves were dwelling places, and that we have here associated with the signs of their rude arts, the more durable refuse of the food of those who dwelt in them.

The different kinds of implements belonging to the period of unpolished stone, are chiefly as follows, viz.: hatchets, chisels, hammers, scrapers, cores, spear and arrow points. To these should be added various implements of bone and of the antlers of the deer.

As regards the antiquity of the implements from the quaternary alluvial deposits or gravels in the valley of the Somme, while the

more careful geologists have abstained from giving anything like a precise period of time necessary to produce the geological changes which have occurred since these deposits were made, it is generally admitted that the deposits preceded the historic period, and were made before the mammoth, the woolly rhinoceros, the reindeer and other animals no longer found in Europe had ceased to exist. But the estimated age would be very different if the gravels were deposited when the river was at a much higher level than now, and had subsequently furrowed out its valley, as is maintained by Lyell, Prestwich, Sir John Lubbock and others, or were deposited in consequence of great floods, after the valley had been worn down to nearly its present level, as maintained by Mr. Taylor in view of the results of some recent investigations. As the matter now stands the weight of authority is very largely in favor of the first view, viz., that of great antiquity.

Under the head of the "polished stone," or, as it is sometimes called, the Neolithic period, are various implements, both of stone and bone, from France, Belgium, Northern Italy and Switzerland, but which, unlike those first referred to, do not come from gravel beds, and are not associated with extinct animals, but with the domesticated species, as the ox, sheep, goat, horse and dog. Unpolished implements are found with these, but may be considered either as rude and unfinished specimens, or as unpolished tools which continued to be used after the polished ones had been made, for it may be presumed that old inventions were not suddenly displaced by new ones in former times any more than now. Those from the Swiss Lakes comprise many specimens and casts of implements from Mooseedorf, Concise and Robenhausen, and other well known localities. Among the articles of stone, there are thirty hatchets made of several kinds of rock, scrapers, arrow points, saws and hammers of flint, "weights" of clay and pottery; also polishing, boring and other instruments of bone, and many pieces of worked antler of the stag, including a fine series of hatchet sockets. There are also specimens of charred cordage in hanks or in the form of nets, of wheat, barley, bread and apples.

The remaining portion of the series belongs to the *Age of Metals*, and though naturally less interesting, is large, and contains an abundance of articles of stone, bone and bronze, also of pottery from various parts of France, but especially from the more recent Swiss Lake dwellings and Northern Italy.

The second, or *Rose Collection*, was made by Wilmot J. Rose, Esq., Civil Engineer, while engaged in constructing public works in Denmark and the Duchies of Schleswig and Holstein during the years 1861 to 1867, and where the various objects were brought together under his immediate inspection. The whole series comprises one thousand five hundred and fifty-nine specimens, of which about fifty are of bronze or iron, a few of bone, and the rest of stone, mostly flint. A very carefully prepared numerical catalogue accompanies them, in which is recorded the source from which each specimen was derived, with frequent notes relating to the nature of the different implements and the circumstances under which they were found.

As the collection arrived only quite recently, it will be impracticable to give a detailed description of the different kinds of objects. They have, however, been sufficiently examined to enable us to form an idea of the chief types of them, which may be referred to the following heads.

1. *Flakes* struck off in the manufacture of implements. These are of many sizes, some of them six inches in length, and quite uniform in shape. As they nearly all have sharp edges, most of them are well adapted to be used as knives, or as scrapers.

2. Blocks or *cores* from which flakes have been split off.

3. *Hammer stones*. Some of these are imperfect spheres with marks of use on the surface, and others are more or less irregularly shaped pebbles with nicely ground circular depressions about an inch in diameter, and varying in number from one to five.

These depressions have been supposed to facilitate the holding of the stone when used as a hammer, but the number and position of them is often not such as to adapt them in the best manner to this purpose.

4. *Hammers* with round holes drilled for handles. These are of many sizes, weighing from eight ounces to more than five pounds, and of various materials, as granite, quartzite, sandstone, trap, diorite, etc. In form they are mostly long and wedge-shaped, the hole being drilled near the top. From this there are many intermediate forms to one, in which the hammer becomes short and thick, the hole central, and the whole has the form of the ordinary sledge. Nilson describes these as helved wedges for splitting wood, but for this purpose they seem very poorly adapted. They are equally ill-suited to be used as axes. The small holes show

that the handle was probably short, and from this circumstance and the shape of the instrument, if used for working wood, it would seem that its effects would be confined to fraying the fibre, and thus gradually and slowly working off the surface.

5. *Hammer-hatchets*. The hole in the middle, one end wedge-shaped and the other flat.

6. *Double hatchets* with both edges sharpened, and the hole in the middle. These are the Amazonian axes of Nilson.

In nearly all the above modifications of hammers, axes, etc., the holes are circular, smooth, and striated within, showing the action of a revolving instrument. There are a few in which the hole is more or less unfinished. From these it appears that conical pits were sunk on opposite sides of the instrument, deepened until they met in the middle, and at last the perforation was made of uniform size throughout.

The ingenuity of observers has been taxed to explain the method of drilling these holes, especially as the use of metal is supposed to have been unknown to the makers, and without which it has been deemed impossible to bore them. The North American Indians have, however, solved the question, and quite recently Mr. Charles Rau of New York, a most accurate and painstaking archæologist, has succeeded in drilling one of our hardest rocks with no other instrument than a revolving stick and sand.

It is worthy of especial notice that not one of the hundreds of *flint* implements in the whole collection has a hole drilled in it.

8. *Axes*. Under this head are comprised a large variety of instruments which may in general be described as flattened, with square sides, with an edge, formed by grinding on both faces, resembling that of an ordinary axe. They vary in length from three to ten inches, and in breadth from one and a half to three inches. As we see them they seem to be better adapted to be used as chisels than axes, unless fitted into a handle in the manner of the Swiss axes. Some of them are as broad at one end as the other, while others become gradually narrower from the edge to the top. The latter form adapts them for handles, but the former does not. These implements are mostly of flint, but a few are of granite, quartzite and other rocks.

9. *Chisels*. These resemble the preceding, but are much narrower and thicker, rarely exceeding two inches in breadth. A few of them are square, and resemble the ordinary "cold chisel."

10. *Knives*. Under this head are classed instruments of chipped flint, pointed at each end, broad in the middle, thin, and with sharp edges. Some are convex on one edge and straight on the other; some are convex on both edges, others crescent-shaped. They vary in length from two to eleven inches.

Under this head should probably be classed some of the objects regarded as spear points.

11. *Saws*. These differ from the knives only in having a more regularly serrated edge.

12. *Spear points*, resembling a leaf-shaped lance-head with a rounded portion for attachment to a handle. Others are worked thin at the base, for insertion into split handles, and have long and pointed blades.

13. *Arrow points*. These are few, not exceeding thirty in all, presenting three or four types. Some of them rudely chipped, leaf-shaped, others long and slender, three-faced, and others flat, triangular and barbed; the barbs are of variable length, and are remarkable for the delicacy of finish, in some cases the edges being very finely serrated. The barbs are worked with great skill, which is wholly unequalled unless it be in similar objects from the north west coast of America.

14. *Daggers* from six to nine inches long, with a well worked hilt.

15. "*Sinkers*," round or oval stones, with one, and sometimes two or three grooves around them. These have been also called sling-stones.

16. *Polishing and grinding stones*.

17. *Mill stones*. One of these is of quartzite, sixteen inches in diameter, deeply concave on the grinding surface, with a hole in the middle for the escape of the ground material. The other is of granite, is like the preceding, but without a central hole.

Nearly all of the above kinds are represented by numerous specimens, showing a great variation in form and size, and affording the means of an extended comparative study. The terms used in designating them must, for the most part, be considered as indicating types rather than uses, these last being conjectural. We have no actual knowledge of the purpose for which most of them were made, the uses assigned being the ones to which they *seem* adapted. They may have been widely different. It is not im-

probable that in the attempts at an explanation of the objects of the different implements, very great mistakes have been made. With only the instrument before him, and not knowing of the use of it by the savage, what would the wisest European be able to say in explanation of the boomerang?

The unusual opportunities enjoyed by Mr. Rose in making this collection, and the care with which he has recorded the sources of the different objects, render it one of very great value, such an one as cannot hereafter be easily repeated out of Denmark, since the Danish government now reserves for its own museums the results of explorations. The Rose Collection with the Claus Collection obtained last year, give very complete facilities for the study of the stone implements of Denmark.

While in Europe the Chairman was fortunately able to complete a negotiation with the eminent Swiss archæologist, Dr. Clement, for one half of his well known collection of antiquities from the Swiss Lakes, and which it is hoped will arrive during the coming spring.

With the acquisition of the collection just referred to from Denmark, the Mortillet Collection from France, and the Clement Collection from Switzerland, the Peabody Museum has accomplished one of its more important objects, viz., the gathering of the means for making direct comparison between the implements of the stone age of the old world and the new. The analogy which was from the first recognized between such implements is most striking. Any one, however, who will compare them side by side will not only recognize close resemblances, but wide differences. The resemblances grow largely out of man's necessities in his primitive condition for similar kinds of instruments, and the differences as largely from the materials at hand for making them. The prevalence of flints, cherts and hornstones in the old world, naturally led to the process of chipping as the more common method of working materials, while in the new the prevalence of primitive rocks led to the process of picking and grinding. Neither process was, however, exclusively used. The perfection to which the art of chipping was carried in Denmark, as seen by the Røse Collection, is unequalled in any part of the world, unless it be in the case of arrowheads by the natives of the northwest coast of America. Besides the differences resulting from the nature of the materials there would be others growing out of modes of life.

Contrasts could be made in many ways, but we will refer to only one. In the Danish collections one is struck with the large numbers of spear points, under various forms, while, notwithstanding the abundance of material well adapted for making them, arrow points are comparatively few, very much fewer than even in France and Switzerland. While in the United States every one who is at all familiar with such collections knows that arrow points form the largest proportion of all the objects found.

Several valuable gifts have been made to the Museum during the year. First among these should be mentioned that from Signor Augusto Castellani of Rome, consisting of a series of fifty well preserved ancient Etruscan vases, comprising ten different types of form. They were presented through the Chairman while recently in Rome, and through the courtesy of Admiral Farragut were brought to the United States in one of the vessels of his fleet.

We are indebted to the Smithsonian Institution for a valuable series of casts of Mexican antiquities, consisting of thirteen idols, twenty-two grotesquely sculptured faces, the originals of which are in the possession of the American Philosophical Society of Philadelphia, a copy of a hieroglyphical tablet from Central America, casts of two crania of Flathead Indians, and various other objects.

The Museum is under especial obligations to Mr. N. S. Shaler, in charge of the department of Palæontology in the Museum of Comparative Zoölogy, for gifts made by himself and by others through his suggestion. An account of the discovery of the different objects presented will be found in the following letter.

PROFESSOR JEFFRIES WYMAN,

DEAR SIR: It gives me great pleasure to be able to present to the Peabody Museum of Archæology a small collection of aboriginal remains from the States bordering the Ohio River. The labels which accompany them sufficiently describe the localities from which they were procured, and I will only add a few facts connected with their history.

The specimens labeled Mount Sterling, Kentucky, were taken some twenty-five years ago, from a large mound which formerly existed at that point. From the description of the owner it seems likely that this monument was an isolated burial mound, having a height of about twenty, and a diameter of about one hundred feet. There must have been a very large quantity of materials buried with the single skeleton, which is described as

having occupied the centre of the mound, inasmuch as I am assured that the specimens I was so fortunate as to obtain, were but a portion of the remains found, the rest having been scattered. The articles sent had been for many years in the possession of Judge R. Apperson, who very generously placed them in my hands to be transmitted to the Peabody Museum.

The numerous fragments of pottery, bones, etc., from the bank of the Ohio River, were found about twenty miles above Cincinnati, where the river section has exposed, at a depth of about eight feet from the present surface, a mass of fragments of earthenware, shells and bones mingled with ashes and charcoal, in such a manner that there can be no doubt that they are some of the debris accumulated about a dwelling place of the mound builders.

Unfortunately it was not in my power properly to explore this bed thoroughly, but you can estimate from the considerable amount of material obtained in a short time, how rich the store must be.

The specimens marked *Stephens' Mound, near Florence, Kentucky*, are from a burial mound on the farm of N. B. Stephens, Esq. This small but beautiful mound is situated about twelve miles south of Covington, Ky., on the edge of the escarpment where the table land sinks down by rapid slopes for about one hundred and fifty feet to the valley of the Leeking River. The total height of the mound was twelve feet, the diameter sixty. On making an excavation six feet by eight from the summit to the base, I found it to be composed of surface deposits which had evidently been brought in small quantities from a considerable distance, as there were no indications of excavations about the mound from which the material could have been derived. At the base, beneath the centre, and resting upon an irregular, slight depression in the original surface of the clay subsoil, I found a mass of mingled bones and ashes, containing altogether perhaps four or five bushels of material. The bones were all broken in a uniform manner, and from the shape of the heap of ashes it seemed as if the embers had been raked together before the covering of them with earth had been begun. The only remains found, except bones and charcoal, were two fragments of pottery and a single small piece of iron ore, which were found in contact with the ash bed. After widening the excavation at the base until I had examined the whole hearth, which seemed to have been about ten feet by six, I caused the pit to be carefully refilled.

You will find with the collection a number of bones from two graves which crown the summit of one of the river bluffs on the bank of the Ohio, about four miles above Newport, Kentucky. From all appearance these graves are quite recent, agreeing exactly in all features which are indicative of age with the other graves of one recently extinct Indian tribes of this region, contrasting strikingly, however, with those monuments by their peculiar circular form. The common Indian graves are simple, rude piles of stones heaped upon the bodies which were laid upon the surface of the

ground, or merely covered with a few inches of earth. These, however, were formed by placing a curbing of regular fragments of considerable size so as to form a circle of ten feet in diameter, from which flat stones were inclined outward, shingled one over the other, so as to form a band about six feet wide. Beneath the stone of this band, or in the crevices between them, were placed a great number of detached human bones, which had evidently been deposited there in the fragmentary state in which they were found.

The most valuable single specimen of the collection is the peculiar tool of syenite, which in form and material differs strikingly from anything I have ever seen from our Western country. The person in whose hands it was found, stated that it was discovered in a cavern near the mouth of the Ohio River. I could not satisfy myself concerning the exact spot from which the specimen came, but have no doubt that it is from some one of the several caves which are to be found in the mountain limestone, about seventy miles from the mouth of the Ohio. This valuable specimen was presented by the finder, Mr. Alfred Orr, Jr., of Newport, Ky. I am, however, especially indebted to my father, N. B. Shaler, M. D., who, perceiving the unique character of it, induced the owner to present it to the Museum.

The single article of pottery in tolerably perfect order came from the banks of the river Gila in New Mexico. It is now in less complete condition than when found, when it is said to have borne an evident resemblance to a duck, or some other water fowl.

Trusting that this small collection, the fruit of a few weeks' search among the remains of the extinct peoples of the Ohio valley, may help to promote in some measure the objects of the Peabody Museum,

I remain most truly yours,

N. S. SHALER.

Cambridge, Mass., December 18, 1868.

The objects presented by Judge Apperson were as follows:—

1. A spear head seven inches long, pointed in the usual way, but with straight sides.
2. Five "arrow" or "spear points," remarkable for their thinness.
3. A disc of sandstone two inches and a half in diameter, and half an inch thick, perforated in the middle, and rudely ornamented with a groove parallel to the circumference.
4. A "chisel" or "fleshing instrument," polished, and having the square sides characteristic of such implements in the Western States.
5. Fragment of a stone pipe, the bowl being broken off. This is similar to some of the pipes found in the mounds, the bowl resting on the middle of a slightly bent plate, about three or four inches long, one end serving as a handle, while the other, perforated by a nicely drilled hole, serves as a stem.

6. A stone implement of variegated slate, five and a quarter inches long, narrow at the ends, bulging in the middle, where it is perforated by two holes, flat on one side and convex on the other, and very neatly wrought and polished.

7. A copper "breast plate" found with the preceding. This is made of thin copper, is six inches and a half long and four and a half wide, with the angles rounded and sides hollowed out, giving it the shape of an ordinary thread winder. It is perforated in the middle with two holes.

8. A copper bracelet of the form usually found in the mounds.

Numbers 6 and 7 are commonly known as "cord twisters," but when the different kinds are compared, it seems probable that some of them were simple ornaments.

Among the objects presented by Mr. Shaler, is a series of implements from Ohio and Kentucky, consisting of stone pestles, grinding stones, arrow points, etc.

Dr. N. B. Shaler and Mr. Eli Speidel have presented others of a similar nature.

The specimen referred to in Mr. Shaler's letter and presented by Mr. Elijah Orr, is very unusual, and perhaps unique in its form and make. It is made of black syenite, thirteen inches long, the sides an inch and a quarter broad in the middle, of square finish, slightly curved and tapering towards either end, the ends being flat and chisel-shaped. It resembles an ordinary pick, but has no hole for a handle. It is highly polished, and shows the existence of great skill in the art of working hard stone. In this respect it may be compared with some of more perfect implements described by Squier and Davis.

Mr. George Peabody Russell, the Secretary of this Board, has given various objects, the results of his personal exploration of an ancient mound in Illinois. In a memorandum relating to them, he says, "the locality from which the crania, etc., I sent you came, was a very high hill or bluff within the limits of Dunleith, Illinois, about one fourth of a mile from the Wisconsin line, and just opposite Dubuque, Iowa. On this bluff is a group of five mounds. Nearly all the bones I sent, together with the arrow-heads, shells and bear teeth, I took from the largest mound, at a depth of twenty-one feet from the surface. None of these mounds had been before disturbed to a greater depth than four feet." The teeth of the bear are drilled with holes, some of them with three or four, and doubtless served as ornaments; they are quite remark-

able for their size, being much larger than those of the ordinary black bear, to which they probably belonged. Among the remains of animals was the cranium of a dog, various pieces of worked bone, one of them the radius of a bear, and fresh water shells, chiefly Unios. A flint scraper, ochre, charcoal, etc., were also found.

The human crania are much decayed, but are interesting as showing in a marked degree the amount of distortion without fracture, which may take place from the simple pressure of the earth.

Col. Theodore Lyman has presented several stone implements, and among them a stone "chisel" from Hyannis, Cape Cod. This last differs in shape from that of similar implements usually found in New England, in having the square instead of the round finish on the sides and faces, in which respect it resembles those of the Western States and Scandinavia.

From Miss M. S. Felton we have received a stone hammer from Ontonagon, and various objects from an Indian grave; also from Dr. Joseph Leidy some bone ornaments from the same place.

From Mr. William C. Otis of Boston, an Indian skull exhumed by him at Nahant.

From Dr. David Mack, Jr., U. S. Navy, the skull of a Flathead Indian, a piece of matting made from the bark of the *Arbor-vitæ*, a fishing line made from a species of seaweed, all from the Straits of de Fuca, and a wooden decoy in the shape of a bird, used in salmon fishing by the natives of Puget's Sound.

From J. Eliot Cabot, Esq., a stone hammer from Canton, Mass.; also the results of personal examinations of the shell heaps at Ipswich, Mass., comprising various remains of animals, and worked pieces of bone. Among the most interesting of the latter was an upper arm bone which had been worked by man, but the worked end having been partially destroyed, leaves it doubtful as to the nature of the implement intended. This bone, in its curves and muscular markings, corresponds with the human humerus, but is unusually slender, and is compressed at the upper part. A careful comparison, however, justifies the conclusion that it was a part of a human skeleton. We have also portions of a human lower jaw from the same shell heap.

From Dr. B. Joy Jeffries a club from the Fijii Islands.

From Dr. Samuel Cabot several stone implements from Canton, Mass.

From Prof. J. D. Whitney the skull of a Root-digger, or Shoshoné Indian.

Dr. Willard Parker has deposited with the Museum two crania from South Africa, both Zulus, male and female.

Mr. J. Eliot Cabot has presented two drawings made by himself, of an idol, secretly worshipped by the Stockbridge Indians of Green Bay, Lake Huron. It was in the possession of a missionary who prevailed upon them to surrender it to him.

In the last Annual Report, the gift of several stone implements was by mistake accredited to David R. instead of John A. Hoxie.

II. EXPLORATIONS.

Several shell heaps were examined during the last summer, and some of those mentioned in the last report, especially at Mt. Desert and Ipswich, have been examined a second time. Through the hospitality and kind aid of Mr. Samuel T. Tisdale of E. Wareham, Cape Cod, the shell heaps in that town were examined in company with Prof. Agassiz and Col. Theodore Lyman, to both of whom the Museum is indebted for the gift of the various objects found by them. In the above examination only a few of the articles discovered were different from those previously observed. It is, however, worthy of especial mention as a matter of zoölogical interest, that the remains of the Great Auk were again found on Cape Cod, and that the bones of the fox obtained there were not those of the red fox (*Canis fulvus* Desm.), but those of the grey species (*Urocyon Virginianus* Baird).

The Curator, in company with Mr. E. S. Morse of Salem, visited the shell heaps on the Damariscotta River in Maine, which in extent may be considered among the most remarkable in the world. The nature of these was recognized many years since by President P. A. Chadbourne. They exist on both sides of Salt Bay, which is an expansion of the Damariscotta River, above the village of the same name on the left, and of Newcastle on the right bank. By far the largest of them is to be seen about a mile above Newcastle, and extends about a half a mile along the shore. Following this from below up the river, one meets at first with scattered deposits of shells, which soon become continuous, and increase in thickness, in many places reaching the height of six or seven feet, and in one place of at least twenty-five feet. They

have been undermined by the river along nearly the whole shore line, and thus large sections have been freely exposed, rendering the examination of them easy. The heaps consist almost exclusively of oyster shells of remarkable size, frequently having a length of eight or ten, and in rare instances from twelve to fourteen inches.

There is generally no intermixture of earth with the shells, and the only other objects are the fragments of the bones of edible animals, as the moose and the deer, fragments of pottery, charcoal, and a few pieces of worked bones. Mr. Morse found at the very foundation of one of the highest heaps the remains of an ancient fire-place, where he exhumed charcoal, bones and pottery. In a few places there is an appearance of stratification covered by an alternation of shells and earth, as if the deposition of shells had been from time to time interrupted, and a vegetable mould had covered the surface. On the landward side of the bluffs are several groups of small circular mounds, quite near together, from ten to fifteen feet in diameter, and from twelve to eighteen inches in height. They are covered to the depth of several inches with vegetable mould, many of them bearing trees, the stump of one of which, recently cut down, showed the age of more than a century. These small mounds are composed of the same materials as the others, but had a larger admixture of earth. They appear to have been the heaps of refuse gradually collected around the encampments.

It is an important circumstance in connection with these deposits, that at the present time oysters are only found in very small numbers, too small to make it an object to gather them, and we were credibly informed that they have not been found in larger quantities since the settlement of the neighborhood. It cannot be supposed that the immense accumulations now seen on the shores of Salt Bay, could have been made unless oysters had existed in very large numbers in the adjoining waters.

We have now in our collections materials from eleven shell heaps in Maine and Massachusetts, and from fifteen in Florida. With one exception, all from the latter State consist of fresh water species, and all but one from Maine and Massachusetts of salt water species.

Under the joint patronage of the Smithsonian Institution and this Museum, several ancient mounds in Kentucky have been ex-

plored, the explorations having been made by Mr. S. S. Lyon, and large numbers of crania and extensive collections of the more important bones of the skeletons have been obtained, and will afford most valuable means for a more extended comparative study. The whole collection has been placed in the hands of the Curator for this purpose. Besides the skeletons, there is a valuable collection of vases, implements, and other objects which were found with them.

III. LIBRARY.

The following additions to the library have been received :—

Catalogue des Antiquités et des Objets d'Art, dans le Musée de Toulouse. Toulouse, 1865. 8vo. pp. 485.

Exposition Universelle de 1867. Histoire de Travail et Monuments Historiques. Paris, 1867. 12mo. pp. 405.

Catalogue of the Anatomical Museum of the University of Cambridge (England). Cambridge, 1862. 8vo. pp. 132.

Exposition Universelle 1867, a Paris. Catalogue de l'Exposition de Histoire du Travail. Confederation Suisse. Neuchatel, 1867. 8vo. pp. 23.

Catalogue of the Salisbury and South Wilts Museum. Salisbury, 1864. 8vo. pp. 60.

Sui Manufatti in Focaja, Rinvenuti, all' Inviolatella nella Campagna Romana, e sull' Uomo all' Epoca della Pietra. Roma, 1867. 4to. pp. 14.

Sopra i Diversi Periodi Eruttivi nell' Italia Centrale. Memoria Geologica del Prof. Giuseppe Ponzi. Roma, 1864. 4to. pp. 33.

Storia Fisica del Bacino di Roma—Memoria del. Prof. Giuseppe Ponzi. Roma, 1867. 4to. pp. 20.

Il Periodo Glaciale e l'Antichità Dell Uomo. del. Prof. Cav. G. Ponzi. Linc. Roma, 1865. 4to. pp. 26.

Sulle Tombe Preistoriche Rinvenute sulla Via Valeria. del Prof. Cav. Giuseppe Ponzi. 1867. 4to. pp. 7.

Sigules Figulians. Etude par M. de Schuermans. Anvers, 1867. 8vo. pp. 192.

Notice of the Blackmore Museum, Salisbury. 8vo. pp. 8.

Notice of the Christy Collection. 8vo. pp. 4.

Catalogue de la Collection Prehistorique, de M. De Mortillet. Paris. 8vo. pp. 15.

From the Hon. Robert C. Winthrop.

Matériaux pour l'Histoire Positive et Philosophique de l'Homme. Par Gabriel de Mortillet. Paris, 1864-67. 3 vols. 8vo.

Les Mystifiés de l'Académie des Sciences. Par M. Gabriel de Mortillet. Paris, 1865. 8vo. pp. 14.

Gastaldi et Mortillet. Sur la Théorie de l'Affouillement Glaciaire. Milan, 1863. 8vo. pp. 8.

Geologie des Environs de Rome. Par Gabriel de Mortillet. Milan, 1864. 8vo. pp. 9.

Les Terramares du Reggiana. Par Gabriel de Mortillet. Paris, 1865. 8vo. pp. 31.

Promenades Historiques a l'Exposition Universelle. Par Gabriel de Mortillet. Paris, 1867. 8vo. pp. 187.

Origine de la Navigation et de Pêche. Par Gabriel de Mortillet. Paris, 1867. 8vo. pp. 47.

L'Epoque Quaternaire dans la Vallée du Pô. Par Gabriel de Mortillet. Paris, 1864. 8vo. pp. 15.

Coupe Geologique de la Colline de Sienne. Par M. Gabriel de Mortillet. 1863. 8vo. pp. 16.

Terrains du Versant Italien des Alpes Comparés a ceux du Versant Français. 1862. 8vo. pp. 58.

Carte des Anciens Glaciers du Versant Italien des Alpes. Par Gabriel de Mortillet. Milan, 1860. 8vo. pp. 40.

From M. Gabriel de Mortillet, .

Conservator in the Gallo-Roman Museum at St. Germain.

Dell' Oreficeria Antica. Discorso di Augusto Castellani. Firenze, 1862. 8vo. pp. 66.

Sull' Incivilimento Primitivo. Memoira di Augusto Castellani. Firenze, 1864. 8vo. pp. 49.

From the Author.

Les Habitants Primitifs de la Scandinavie. Par Sven Nilson. Paris, 1868. 8vo. pp. 323. Plates.

From the Hon. George H. Yeaman,

American Minister at Copenhagen.

In conclusion, it may be stated that temporary cases have been put up in the two rooms in the rear of the anatomical lecture room in Boylston Hall, in which the collections of the Museum, with the exception of the crania, are deposited. The crania are arranged by themselves in a series of cases in the Anatomical Museum.

Respectfully submitted,

J. WYMAN, *Curator.*

REPORT OF THE TREASURER.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology in connection with Harvard University:

The Treasurer respectfully presents his Second Annual Report in the accounts hereto annexed. For greater safety, thirty registered Massachusetts Coast Defence Five per cent. Specie Notes for \$5,000 each, dated January 31, 1869, with interest from January 1, numbered from 46 to 75, and due July 1, 1883, have been obtained in place of the 150 Five per cent. Coupon Massachusetts Bonds of the same loan given by George Peabody, Esq.

The abstract of the account is as follows:—

The Collection Fund is charged with

| | | |
|---|-------------|--------------------|
| 9 Massachusetts Five per cent. Notes of \$5,000 each, number 46 to 54, gold | \$45,000.00 | |
| Income of above Notes in currency | 3,080.84 | |
| Income of 9 Massachusetts Five per cent. Notes of Professor Fund, numbered from 46 to 75, and due July 1, 1883, have been obtained in place of the 150 Five per cent. Coupon Massachusetts Bonds of the same loan given by George Peabody, Esq. | 3,080.84 | |
| Repayment of Loans by Worcester and Nashua Railroad Co. | 4,886.00 | |
| Repayment of overpayment by Professor Wyman | 10.00 | |
| Income of Investments by Treasurer | 171.98 | |
| | | <u>\$56,249.81</u> |

And this account is credited with

| | | |
|--|-------------|--------------------|
| 9 Massachusetts Five per cent. Notes of \$5,000, due July 1, 1883 | \$45,000.00 | |
| Worcester and Nashua Railroad Co's Note, January 5, 1869, on demand, Six per cent. | 1,544.00 | |
| Payment for Clement Collection of Swiss Antique Objects | 2,742.64 | |
| Payment for Mortillet Collection of Antiquities from France, etc. | 2,760.00 | |
| Payment in part of £1,000 for Rose Collection of Danish Objects, | 3,288.89 | |
| Payment for Insurance of Museum for five years | 200.00 | |
| Payment for Cases, Printing, and Incidental Expenses | 700.50 | |
| Balance in hands of Treasurer | 13.78 | |
| | | <u>\$56,249.81</u> |

Treasurer's Bill of Exchange for £525, due Jan. 14, 1870, for balance for Rose Collection, may be paid from income of current year.

The Professor Fund.

| | |
|--|--------------------|
| The Professorship not being filled, this Fund contains only nine Specie Five per cent. Notes of \$5,000 each, the income being appropriated to Collection Fund | <u>\$45,000.00</u> |
|--|--------------------|

The Building Fund is charged with

| | | |
|--|-------------|--------------------|
| 12 Massachusetts Five per cent. Specie Notes of \$5,000 | \$60,000.00 | |
| Income of above | 4,121.24 | |
| 8 United States Five-twenty Bonds of July 1, 1867, 2 of 1,000, 1 of 50 | 2,050.00 | |
| Worcester Sewer Bonds, 2 of 1,000, 1 of 100 | 2,100.00 | |
| Income from Treasurer's investments | 848.68 | |
| Balance of last annual account | 2.45 | |
| | | <u>\$68,617.85</u> |

And this Fund is credited with

| | | |
|--|-------------|--------------------|
| 12 Massachusetts Specie Five per cent. Notes of 5,000 each, due July 1, 1883 | \$60,000.00 | |
| 8 United States Five-twenty Bonds of 1867, 2 of 1,000 and 1 of 50, | 2,050.00 | |
| 8 Worcester Sewer Bonds, due June 15, 1877, Six per cent. | 2,100.00 | |
| 4 Worcester Water Bonds, due June, 1877, Six per cent. | 2,200.00 | |
| City of Worcester Note on demand, interest Six per cent. | 2,267.85 | |
| | | <u>\$68,617.85</u> |

The Investments of the

| | |
|--|---------------------|
| Collection Fund, at par, amount to | \$46,544.00 |
| Professors Fund, at par | 45,000.00 |
| Building Fund, at par | 68,617.85 |
| Aggregate of Fund | <u>\$160,161.85</u> |

STEPHEN SALISBURY, *Treasurer.*

Dr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archaeology,*

1868.

For Collection Fund.

| | | |
|----------|--|-------------|
| Mar. 7. | To received of Prof. Wyman, for overpayment Jan. 6 | \$10.00 |
| Mar. 26. | To received part payment of Note of Worcester and Nashua Railroad Co. of July 1, 1867 | 104.89 |
| May 14. | To received part payment of Note of Worcester and Nashua Railroad Co. of Jan. 7, 1868 | 2,892.64 |
| July 1. | To received Six Months' Interest on 45 Massachusetts Coast Defence Notes, Gold | \$1,125.00 |
| July 1. | To received on sale of above Gold, at 40¼ advance | 451.41 |
| | | 1,576.41 |
| July 1. | To received Six Months' Interest on 45 Massachusetts Coast Defence Notes of Professor Fund in Gold | \$1,125.00 |
| July 1. | To received on sale of above Gold, at 45¼ advance | 451.41 |
| | | 1,576.41 |
| July 1. | To received Interest on Worcester and Nashua Railroad Co., Note of July 1, 1867 | 55.29 |
| July 1. | To received balance of Worcester and Nashua Railroad Co., Note of January 7, 1868, principal | \$100.23 |
| | Interest | 64.65 |
| | | 164.88 |
| Aug. 13. | To received in part of Worcester and Nashua Railroad Co's Note, July 1, 1867 | 198.82 |
| Nov. 21. | To received balance of Worcester and Nashua Railroad Co's Note, July 1, 1867, principal | \$1,589.42 |
| | Interest | 38.51 |
| Nov. 21. | To received principal of Worcester and Nashua Rail- road Co's Note, July 1, 1868 | 612.98 |
| | Interest | 18.48 |
| | | 2,254.39 |
| 1869. | | |
| Jan. 1. | To received Six Months' Interest on 9 Massachusetts Coast Defence Five per cent. Notes, each 5,000, Gold | \$1,125.00 |
| Jan. 1. | To received on sale of above Gold at 124¼ advance | 389.53 |
| | | 1,514.53 |
| | To received Six Months' Interest on 9 Massachusetts Coast Defence Five per cent. Notes, each 5,000, of Professor Fund, in Gold | \$1,125.00 |
| | To received on sale of above Gold, at 34¼ advance | 389.53 |
| | | 1,514.53 |
| | | \$11,862.79 |

1868.

For Building Fund.

| | | |
|----------|--|--------------------|
| Jan. 9. | To balance of Treasurer's Account | \$2.45 |
| Jan. 27. | To received Interest on 2,100 Worcester Sewer Bonds, to 15th | 56.70 |
| July 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes, 60,000 | \$1,500.00 |
| July 1. | To received for sale of above Gold, at 40¼ | 601.87 |
| | | 2,101.87 |
| July 1. | To received Six Months' Interest on 2,050 United States Five-twenty Bonds, Gold | \$61.50 |
| July 1. | To received on sale of above Gold, at 40¼ | 24.67 |
| | | 86.17 |
| Dec. 7. | To received Six Months' Interest on 2,200 Worcester Water Bonds, to 1st | 66.00 |
| Dec. 15. | To received Six Months' Interest on 2,100 Worcester Sewer Bonds | 63.00 |
| 1869. | | |
| Jan. 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes, Gold | \$1500.00 |
| Jan. 1. | To received on sale of above gold, at 34¼ | 519.37 |
| | | 2,019.37 |
| Jan. 1. | To received Six Months' Interest on 2,050 United States Five-twenty Bonds, Gold | \$61.50 |
| Jan. 1. | To received on sale of above Gold, at 34¼ | 21.29 |
| | | 82.79 |
| | | <u>\$16,341.14</u> |

etc., in connection with Harvard University, in Annual Cash Account, Jan. 9, 1869 Cr.

| | | | |
|----------|--|--------------------|--|
| 1868. | | | |
| Mar. 26. | By paid J. Wilson & Son, bill for printing Annual Report | \$114.89 | |
| Apr. 30. | By paid Joseph Henry, Smithsonian Institute, for Exploring mounds in Kentucky | 150.00 | |
| May 13. | By paid Exchange for 10,000 francs for R. C. Winthrop in London, to buy Clement Collection | 2,742.64 | |
| July 1. | By paid for £400 for R. C. Winthrop, to buy Mortillet Collection | 2,780.00 | |
| July 1. | By paid for Worcester and Nashua Railroad Co's Note on demand, interest semi-annually | 612.98 | |
| July 1. | By paid Dr. Berendt, for use of Dr. Kellar for collections, | 90.60 | |
| Aug. 13. | By paid Professor Wyman, freight and expenses of Mortillet Collection | 108.22 | |
| Nov. 23. | By paid for exchange on Loring Bro. & Co., to pay Wil- mot J. Rose, in part for his collection, £500 (Balance £500 being paid by Treasurer, bill of ex- change £525 due Jan. 11, 1870). | 3,288.89 | |
| Dec. 9. | By paid Professor Wyman, for Policy of Insurance for \$5,000 on collection for five years, at Fireman's Insurance Office | 200.00 | |
| Dec. 9. | By paid Professor Wyman, for cases, \$206; for trays, \$17; Expressage, \$13.81; Sundries, 98c. | 236.79 | |
| 1869. | | | |
| Jan. 5. | By paid for Worcester and Nashua Railroad Co's Note on demand | 1,544.00 | |
| Jan. 9. | By Balance to new account | 18.78 | |
| | | <u>\$11,862.79</u> | |
| 1868. | <i>For Building Fund.</i> | | |
| July 2. | By paid for Worcester Sewage Bonds | \$2,200.00 | |
| | Interest from June 15 | 11.00 | |
| 1869. | | | |
| Jan. 5. | By paid for Worcester City Note | 2,267.35 | |

\$16,841.14

Boston, January 11, 1869.

I have examined the above account of Hon. Stephen Salisbury, Treasurer, and find it correctly cast, with proper vouchers for the same. I have also examined and counted the Bonds and Notes held as securities, and find them as above stated.

GEO. PEABODY RUSSELL, *Auditor.*



THIRD ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, DEC. 1, 1870.

BOSTON:
PRESS OF A. A. KINGMAN.
1870.

DEATH OF MR. GEORGE PEABODY.

The following Resolution, prepared by Prof. Gray, in accordance with a request from the Trustees, was offered at the annual meeting held 8th January, 1869, and unanimously adopted : —

Whereas, it has pleased the Almighty to remove from this life, in the fulness of years and honors, the venerated Founder of this Museum, we, the administrators of this one of his many trusts for the advancement of knowledge and the good of mankind, would place on record our sense of profound respect for his memory, admiration of his goodness and wisdom, and gratitude for his most useful and noble life ;

And as a further tribute of affectionate regard, we resolve to follow his remains to the grave.

THIRD ANNUAL REPORT.

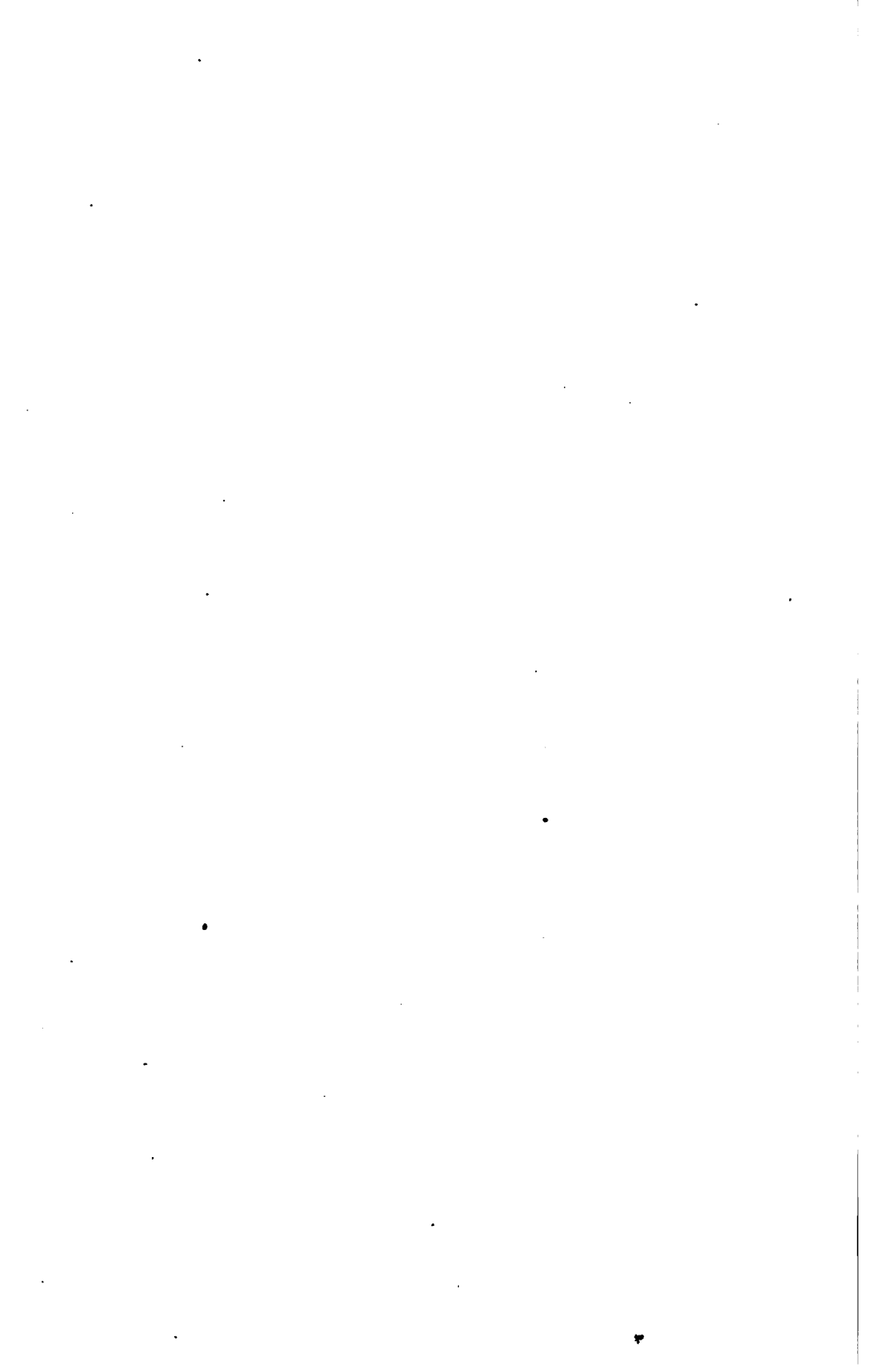
TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archaeology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Third Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

These Reports were submitted to the Trustees, and accepted by them, at their annual meeting in January; but the departure of our Curator for Europe immediately after that meeting, for the benefit of his health, prevented him from attending to the publication of his Report until his recent return.

ROBERT C. WINTHROP.
CHARLES FRANCIS ADAMS.
STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
HENRY WHEATLAND.
GEO. PEABODY RUSSELL.

CAMBRIDGE, Dec. 1, 1870.



REPORT OF THE CURATOR.

THE Curator respectfully submits the following report on the additions to the collections of the Museum which have been made during the past year.

I. CLEMENT COLLECTION.

This most valuable collection of remains from the Swiss Lake dwellings, comprises a large portion of the series negotiated for by the Chairman, during his recent visit to Europe, and referred to in the last annual report. It contains, in all, eight hundred and sixty-five specimens. Of these, six hundred and eighty-seven are assigned to the *Age of Stone*, are chiefly from localities near Concise and St. Aubin, and were mostly collected by Dr. Clement himself. Of the remains of animals, wild or domesticated, there are those of the ox, hog, sheep, goat, dog, deer, cat, fox, lynx, bear, weasel and squirrel. Among the implements of stone are spear and arrow points, borers, chisels, axes, and other kinds of cutting instruments. Many of the stone tools are still retained in their sockets made of the antler of the deer, and a few of the axes are provided with handles restored after the original patterns, these last having been, in almost every instance, too much decomposed for preservation.

There are one hundred and seventy-eight objects belonging to the *Age of Bronze*, consisting of fragments of pottery, various implements of bronze, such as axes, spear and arrow points, sword blades, fish hooks, pins of various dimensions, pendants and other personal ornaments.

The whole collection is carefully mounted on cartons, numbered,

and accompanied with a complete and carefully prepared catalogue, indicating the source from which each specimen was derived. From the fact of its having been almost entirely made by Dr. Clement himself, or under his immediate supervision, the collection may be considered as authentic throughout.

The Museum is again largely indebted to the distinguished naturalist, Professor Edward Desor, for his personal aid and supervision, which has been most cheerfully given in preparing and forwarding this collection during the illness of Dr. Clement.

II. COLLECTION OF THE BOSTON MARINE SOCIETY.

Through the generosity of the President and Council, a very valuable collection of objects, made mostly by the members of this Society early in the present century, in different parts of the world, has been deposited with us. They are chiefly from the northwest coast of America and the islands of the Pacific, and amount in all to one hundred and fifty-one pieces. The collection had already been deposited with the Boston Society of Natural History, but in view of the foundation of this Museum, the Society deemed that it would better advance the interests of knowledge to have all its objects pertaining to ethnology brought into one series with our own. It was therefore proposed by the Society to transfer the collections to us, and the proposition readily received the assent of the Boston Marine Society.

The collection comprises an excellent series of clubs, spears, paddles, bows and arrows, models of canoes, badges of office, many of these most elaborately carved, different kinds of musical instruments, personal ornaments, carvings, hats, articles of clothing, etc.

III. THOREAU COLLECTION.

For reasons stated under the preceding head, the Boston Society of Natural History have deposited with this Museum a large series of Indian implements of stone from various parts of New England, but chiefly from the neighborhood of Concord, Mass. This collection was made by the late Henry D. Thoreau, of Concord. There are over one hundred specimens of axes, pestles, gouges, mortars, chisels,

spear points, ornaments, etc., and a larger number of arrow points of very varied patterns and materials.

The entire collection comprises about nine hundred pieces.

IV. FROM EXPLORATIONS IN TENNESSEE.

The Rev. E. O. Dunning has been employed by the Trustees, during the past summer, in the excavation of mounds and caves in this State, and, with a few exceptions, the results of these explorations have all been received. The more important localities examined were, 1, Brakebill Mound, at the junction of the French-Broad with the Holston River, and from which the larger portion of the objects was obtained; 2, Turner's Mounds, on Turner's farm, near the Little Sequachie, Marion Co.; 3, Shell Mound, on the railroad to Nashville, thirty-five miles west of Chattanooga. Two bone caves were also examined, one of them three miles from the town of Jasper, in Marion Co., and the other six miles from the same place, near Turner's Mounds.

The objects found consist of crania and other portions of several human skeletons, fragments of the bones of animals used as food, and ornaments and implements of shell and bone buried with the dead. Among them are some ornaments made of the shell of the *Pyrula perversa*, with carved figures of elaborate patterns. Some of these, in their general features, resemble figures of Mexican origin. Among the implements are well preserved cups or dishes made of the same species of shell as the preceding, but of much more gigantic size than those now found. One of them measures a foot in length, though the beak has been broken off. When entire its length could not have been less than fourteen or fifteen inches. These shells probably came from the Gulf of Mexico, and found their way into Tennessee as articles of traffic. The dishes are made in the same way, and not to be distinguished from those used in Florida at the time of the first visit of the Europeans, or from those, as will be seen further, found in the ancient burial mounds. The great similarity in the style and make of these dishes renders it quite probable that they were manufactured in Florida. There are numerous specimens of beads, probably made of the spine of the *Strombus*, also from the Gulf of Mexico, and of various sizes, from half an inch to more than an inch in length, and having a well drilled hole. To these should be added

beads made of a species of *Oliva*, and pin-shaped implements made of the spire of some heavy marine shell, the largest of them five inches long, with a head an inch in diameter. The implements of stone are mostly of well known kinds, such as chisels, axes, discoidal and cylindrical stones, dishes, etc.

A general report by Mr. Dunning of the details of the explorations accompanies the collection.

V. FROM EXPLORATIONS IN FLORIDA.

While a guest of J. M. Forbes, Esq., on board the yacht *Azalea*, during the months of February, March and April, the Curator had an opportunity of examining various shell heaps and mounds on the Atlantic and Gulf Coasts of Florida, viz., at Fernandina, Key Biscayne Bay, Charlotte Harbour, Tampa Bay and Cedar Keys. The results of these examinations, consisting of the crania and parts of the skeletons of more than twenty individuals, of various articles of worked shell, stone and bone, and a collection of the remains of the more common species of animals used as food, and forming the material of the shell heaps, belong to the collections of the Museum.

Of the mounds, those made of stone appear hitherto to have attracted little or no attention. Two are to be seen at the entrance of the Miami River into Key Biscayne Bay. The larger of them is on the left bank, a few hundred yards from the river, and quite near to the shores of the bay. Since the Florida war, it has been used by the soldiers and settlers as a burial place, and could not therefore be examined. The second is on the right bank, about a half mile from the mouth, and a few rods from the banks of the Miami. It is about eleven feet high, sixty long and forty broad, covered with sand, and supporting a growth of young trees. With the exception of the covering of sand, it is made entirely of loose fragments of the coral limestone of the neighborhood, and appears to have been simply a monumental structure. An excavation was made from one of the sides as far as the centre, and from the top to the base, but nothing was found buried or enclosed in it.

An ancient burial mound, on an island opposite Shell Mound, near Culpepper's Mound, Cedar Keys, furnished a good collection of crania and other parts of skeletons, also a collection of dishes made of the shell of the *Pyrula*, and of the same pattern as those from other parts of

Florida, and, as already described, from Tennessee. The crania are many of them remarkable for their thickness and rough exterior, and in some cases, the tibiae were very much flattened from side to side, as has been observed to be the case with some from other parts of the United States, and in the Old World, from the caves of Dordogne and Gibraltar.

VI. FAST COLLECTION.

A series of objects collected in Alaska by Capt. Edward G. Fast, during the years 1866 and 1867, has been recently bought. They are mostly the work of coast Indians, known as Thlinkets, or more commonly as Kalooshes, but some are made by the Eskimo and the inhabitants of the Aleutian Islands. The following kinds of articles are, for the most part, numerous, viz., clubs, spears, spear points, bows and arrows, paddles, floats, snow shoes, wooden helmets, gorgets and armour of wood for the body, head-dresses and ornaments, combs, spoons, rattles for dancing, medicine rattles, necklaces, charms, ornaments of stone, bone and amber, dishes of wood and horn, masks, pipes, nets, fish hooks, hair, wigs, dolls, baskets, mats, dresses made of fur, skin, bird skin and intestines, etc. There are several elegantly made models of canoes with a complete outfit of paddles, spears, also a large skin canoe, or *baidar*, fourteen feet in length, with paddles, seal spear, etc.

Nearly all the carvings in bone, horn and wood, are of the most elaborate and skilfully wrought patterns.

The Museum may be well considered fortunate in the possession of so valuable a collection, and, in negotiating for the purchase of it, was also fortunate in having the advantage of the services of Mr. William H. Dall, whose recent explorations in Alaska rendered him especially cognizant of the value of the different articles.

VII. FROM NICARAGUA.

A collection of about one hundred objects, consisting of articles of stone and pottery, and obtained during the last year in Nicaragua by Mr. J. A. McNiel, has been bought.

VIII. GIFTS.

The following gifts to the Museum have been received:

An Indian stone axe and a piece of worked flint from Big Bone Lick, Kentucky. *From Prof. N. S. Shaler.*

An Indian stone axe and stone club found in Belmont, Mass., by the late Leonard Stone, Esq. *From his heirs.*

A collection of flint chips from the barrows near Stonehenge, where they were found by the donors. *From Dr. Morrill Wyman, and Morrill Wyman, Jr.*

A stone "plummet" from Niagara Falls, a carved stone from Sanbornton, N. H., and two quartz arrow heads. *From F. G. Sanborn.*

Two implements made of shell from Barbadoes. *From Rev. Greville J. Chester, of Chicheley, Bucks, England.*

A robe made of the skins of birds from the northwest coast of America. *From B. P. Mann.*

An ancient Greek vase, lamp, lachramatory vase, a copy of an ancient Egyptian tablet, six Egyptian idols, and an animal carved in relief on stone. *From Hon. Robert C. Winthrop.*

Five boxes made by the natives of the northwest coast of America. *From the Smithsonian Institution.*

A stone adze from the Hawaiian Islands. *From Dr. J. W. Randall.*

Twenty specimens of implements, consisting of models of canoes, etc., from the Islands of the Pacific. *From the Peabody Academy of Sciences.*

Cranium of an Eskimo and of a Tchookchee. *From William H. Dall.*

Cast of the skull of an Aymarra. *From Dr. J. C. Dalton.*

Chisel made of shell, from Florida. *From Dr. A. S. Baldwin.*

A stone ornament and a stone chisel from Six-town Point, near Lake Ontario. *From Frank Johnson.*

A pipe, discoidal stone, two stone chisels, and several arrow points, and fragments of pottery. *From the Surgeon General's Office, Washington.*

A Chinese guitar and drum, also several varieties of shoes from eastern countries. *From William T. Brigham.*

A glass bottle from the grave of a Pocasset Indian, Tiverton, R. I. *From Stephen T. Grinnell.*

The bowl of a spoon from the same as the preceding. *From Nathan Grinnell.*

Wampum, glass beads, and two small brass bowls, from graves of Pocasset Indians. *From W. H. H. Howland.*

Model of a silver cross, found in an Indian grave, at Ontonagon, near Lake Superior. *From ——— Lamborn.*

Scalp of an Indian. *From Francis Parkman.*

A bow and seven arrows, made by Shasta Indians, presented to the Boston Society of Natural History by the late Dr. Henry Bryant, and deposited by the Society in our collection.

A Japanese musical instrument, presented to the Boston Society of Natural History by Mrs. James Phillips, and deposited by the Society with the Museum.

A dish made from a gourd, by the Indians of Guatemala. *From Mrs. S. Parkman.*

Five heads of Egyptian mummies, and the skull of the mummy of a dog. *From Prof. Asa Gray.*

An Indian stone axe. *From the Rev. N. Hoppin, D.D.*

Five awl-shaped implements of bone, two teeth of the moose and two arrow points from shell heaps on the coast of Maine. *From Louis Cabot.*

Teeth of the bear, and fragments of the bones of the moose, from the shell heaps of Mt. Desert, Maine. *From Dr. S. A. Greene.*

A collection of crania, human bones, stone implements, fragments of pottery, etc., made and presented to the Hon. Robert C. Winthrop, by Mr. Henry Gillman, of Detroit, Michigan, and by Mr. Winthrop presented to the Museum.

Three crania, and portions of the skeletons of Pocasset Indians, from graves at Tiverton, R. I. *From Andrew Robeson.*

The following books and pamphlets have been presented to the Library of the Museum:—

Catalogue of Alaskan Antiquities and Curiosities. Pamph. 8vo. 1869. (Fast Collection.) *From Leavitt, Strebeigh & Co.*

Die Pfahlbauten des Neuenberger Sees Von E. Desor. Pamph. 8vo. 1866. *From the Author.*

Essai d'un Classification des Cavernes et des Stations sous Abri. Par M. G. de Mortillet. Pamph. 8vo. 1869. *From the Author.*

Les Armes D'Alise. Par M. Verchere de Reffye. Pamph. Royal 8vo. 1864. *From Gabriel de Mortillet.*

The following are all the gift of Hon. Robert C. Winthrop:—

Gillis's Astronomical Expedition to Chili. 2 vols. 4to. 1855.

Owen's Geological Survey of Wisconsin, Iowa and Minnesota. 4to. 1852.

The History of Oregon and California. By Robert Greenhow. 8vo. 1845.

Reports of Explorations in California. By Emory Cook & Abert. 8vo. 1848.

Reports of Explorations of the Valley of the Amazons. By Gibbons & Herndon. 2 vols. 8vo. 1853, 1854. Maps.

- Exploration of Red River, in Louisiana. By Marcy & McClellan. Maps. 8vo. 1854.
- Stansbury's Expedition to Great Salt Lake. 8vo. Maps. 1852.
- Fremont's 1st and 2d Expeditions to Oregon and California. 1842, 1843, 1844. 8vo. 1845.
- Sitgreaves's Expedition down the Zuni and Colorado Rivers. 8vo. 1858.
- Emory's Reconnaissance of New Mexico and California. 8vo. 1848.
- Reconnaissances in New Mexico and Texas. By Lt. Col. J. E. Johnston, Lieuts. Smith, Bryan, Michler, and Capt. S. G. French. 8vo. 1850.
- Report on the Geology of Lake Superior. By Foster & Whitney. 2 vols. 8vo. Maps. 1850, 1851.
- Maps to Andrew's Report.
- Zoölogy and Botany of Massachusetts, State Surveys. By Gould, Harris, Peabody, Storer, Dewey and Emmons. 2 vols. 8vo. 1838-41.
- Geology of Massachusetts. By Prof. Edward Hitchcock. 8vo. 1835.
- Guide du Visiteur. Eglises de Paris. Par H. Firguet. Pamph. 8vo. 1855.
- The American Goliah. 8vo. Pamph. 1869.
- Indian Bulletin, No. I. By Rev. N. W. Jones. Pamph. 8vo. 1867.
- Report on Camels for Military Purposes. By Wayne & Porter. 8vo. 1857.
- Smithsonian Reports, 1854 to 1864 inclusive.
- Auguste Belet. Description de L'Amphitheatre de Nismes. 8vo. 1860.
- Map of Central America. 1856.
- First and Second Reports of the Geological Survey of Missouri. By G. C. Swallow. 8vo. 1855.
- A Guide to the Antiquities of the British Museum. Pamph. 8vo. 1860.
- Musee des Thermes et de l'Hotel de Cluny. 8vo. Pamph. 1859.
- The Abnakis and their History. By Rev. Eugene Vetromile. 12mo. 1866.

Respectfully submitted,

J. WYMAN, *Curator.*

January 8, 1869.

REPORT OF THE TREASURER.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology in connection with Harvard University:

The Treasurer respectfully presents his Third Annual Report in the following abstracts of accounts, and the cash account hereto annexed:—

The Collection Fund is charged with

| | |
|--|--------------------|
| 9 Massachusetts Five per cent. Coast Defence Specie Notes of \$5,000 each, due July 1, 1883, number 46 to 54 | \$45,000.00 |
| Income from above Notes in currency | 2,882.81 |
| Income from 9 Massachusetts Five per cent. Specie Notes of Professor Fund | 2,882.81 |
| Repayment of Worcester and Nashua Railroad Note of Jan. 5, 1869 | 1,544.00 |
| Repayment by Hon. E. C. Winthrop of unexpended balance of payment, May 15, 1868, for Clement Collection | 1,500.62 |
| Income from Investments by Treasurer | 79.45 |
| Balance of cash in hands of Treasurer on settlement Jan. 11, 1869, | 18.78 |
| | <u>\$58,908.47</u> |

And Collection Fund is credited with

| | |
|---|--------------------|
| 9 Massachusetts Five per cent. Specie Bonds as above | \$45,000.00 |
| Payment to C. Dunning for Researches in Tennessee | 200.00 |
| Payment for McNeil Collection | 175.00 |
| Payment for Alaska Collection | 2,500.00 |
| Payment to Barings, Bros. & Co., for Bill of Exchange, for £525, due Jan. 14, 1870, for Rose Collection | 3,068.29 |
| Payment for Printing, Boxes and Incidental Expenses | 222.26 |
| Payment to Prof. Wyman as Curator for two years | 1,000.00 |
| Balance of Cash in hands of Treasurer | 1,737.92 |
| | <u>\$58,908.47</u> |

The Professor Fund is charged with

| | |
|--|--------------------|
| 9 Massachusetts Five per cent. Specie Coast Defence Notes, due July 1, 1883, each \$5,000, number 56 to 63, the Income being appropriated to Collection Fund, as the Professorship is not filled | <u>\$45,000.00</u> |
|--|--------------------|

The Building Fund is charged with

| | |
|---|--------------------|
| 12 Massachusetts Five per cent. Specie Coast Defence Notes, due July 1, 1883, number 64 to 75, each \$5,000 | \$60,000.00 |
| Income from above Notes in currency | 8,844.06 |
| 3 United States Five-twenty Bonds of July 1, 1867, 2 of \$1,000, 1 of \$50 | 2,050.00 |
| 4 Worcester Water Bonds, due June 1, 1877, at Six per cent. | 2,200.00 |
| 3 Worcester Sewer Bonds, due June 15, 1877, at Six per cent. | 2,100.00 |
| Repayment of City of Worcester Note, Jan. 5, 1869 | 2,287.35 |
| Income from Investments by Treasurer | 619.99 |
| | <u>\$78,081.40</u> |

And Building Fund is credited with

| | |
|---|--------------------|
| 12 Massachusetts Five per cent. Specie Bonds, as above | \$60,000.00 |
| 3 United States Five-twenty Bonds of July 1, 1867, as above | 2,050.00 |
| 9 Worcester Water Bonds, due June 1, 1877 | 4,500.00 |
| 3 Worcester Sewer Bonds, as above | 2,100.00 |
| One City of Worcester Note on demand, Seven per cent. Interest, semi-annually, dated July 6, 1869 | 2,287.35 |
| One City of Worcester Note on demand, Seven per cent. Interest, semi-annually, dated Jan. 6, 1870 | 2,144.05 |
| | <u>\$78,081.40</u> |

The Investments of the

| | |
|--|---------------------|
| Collection Fund, at par, amount to | \$46,732.92 |
| Professors Fund, at par | 45,000.00 |
| Building Fund, at par | 78,081.40 |
| | <u>\$164,814.32</u> |

Boston, Jan. 8, 1870.

STEPHEN SALISBURY, Treasurer.

Dr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archaeology.*

1869.

For Collection Fund.

| | | | |
|----------|--|------------|------------|
| Jan. 9. | To balance of Cash in hands of Treasurer | \$13.78 | |
| " 23. | To received in part of Worcester and Nashua Railroad Co's Note of \$1,544, dated 5th inst. | 1,000.00 | |
| July 3. | To received Six Months' Interest on Massachusetts Five per cent. Notes, \$45,000, to 1st inst., Gold | \$1,125.00 | |
| July 3. | To received on sale of above Gold, \$1,125, at 86½ per cent. | 413.43 | |
| July 3. | To received Six Months' Interest on Massachusetts Five per cent. Notes of Professor Fund, \$45,000, to 1st inst., Gold | 1,125 00 | |
| July 3. | To received on sale of above Gold, \$1,125, at 86½ per cent. | 413.44 | |
| July 2. | To received Interest, to 1st inst., on Worcester and Nashua Railroad Co's Note of Jan. 5, 1869. | 3,076.87 | |
| Sept. 23 | To received in part of Worcester and Nashua Railroad Co's Note of \$1,544, dated Jan. 5, 1869 | 18.79 | |
| Nov. 4. | To received balance of Worcester and Nashua Railroad Co's Note of \$1,544, dated Jan. 5, 1869 | 264.00 | |
| Nov. 4. | To received interest on Worcester and Nashua Railroad Co's Note of \$1,544 dated Jan. 5, 1869 | \$280.00 | |
| Nov. 4. | To received Interest on Worcester and Nashua Railroad Co's Note of \$1,544 dated Jan. 5, 1869 | 10.27 | |
| Nov. 12. | To received in part City of Worcester Note of July 6, 1869 | 290.27 | |
| Dec. 20. | To received balance of Note of City of Worcester of July 6, 1869 | 2,460.00 | |
| Dec. 20. | To received Interest on Note of City of Worcester of July 6, 1869, at Seven per cent. | \$566.37 | |
| Dec. 20. | To received Interest on Note of City of Worcester of July 6, 1869, at Seven per cent. | 50.39 | |
| Dec. 20. | To received of R. C. Winthrop, Bill of Exchange on Barings, Bros. & Co., at sight, for balance unexpended of payment, May 13, 1868, for Clement Collection, £247 0s. 5d. and Interest to Jan. 14, 1870, £9 14s. 10d. = £266 15s. 3d. at 131¼ | 617.26 | |
| | | | \$1,500.62 |

1870.

| | | | |
|---------|---|------------|------------|
| Jan. 5. | To received Six Months' Interest on Massachusetts Five per cent. Notes, \$45,000, to 1st inst., Gold | \$1,125.00 | |
| Jan. 5. | To received on sale of above Gold, \$1,125, at 19½ per cent. | 219.37 | |
| Jan. 5. | To received Six Months' Interest on Massachusetts Five per cent. Notes Professor Fund, to 1st inst., Gold | 1,125 | |
| | To received on sale of above Gold, at 19½ | 219.38 | |
| | | | \$2,688.75 |

1869.

For Building Fund.

| | | | |
|----------|---|------------|--------|
| Apr. 1. | To received Amount of Treasurer of City of Worcester Note, Jan. 5, 1869, Principal \$2,267.85, Interest \$32.65 | \$2,300.00 | |
| July 2. | To received Interest on the Worcester Water Bonds, \$4,500, to 1st of June last | \$89.00 | |
| July 2. | To received Interest on Worcester Sewer Bonds, \$2,100, to 15th | 63.00 | |
| July 3. | To received Six Months' Interest on \$2,050 United States Five-twenty Bonds, to 1st inst., Gold | \$61.50 | |
| July 3. | To received on sale of above Gold, \$61.50, at 86½ | 22.60 | |
| July 3. | To received Six Months' Interest on \$60,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | 1,500.00 | |
| July 3. | To received on sale of above Gold, \$1,500, at 86½ | 551.25 | |
| Dec. 23. | To received Six Months' Interest on Worcester Water Bonds, to 1st inst. | \$135.00 | |
| Dec. 23. | To received Six Months' Interest on Worcester Sewer Bonds, to 1st inst. | 63.00 | |
| | | | 198.00 |

1870.

| | | | |
|---------|--|------------|-------------|
| Jan. 5. | To received Six Months' Interest on \$6,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | \$1,500.00 | |
| Jan. 5. | To received on sale of above Gold, \$1,500, at 19½ per cent. | 232.81 | |
| Jan. 5. | To received Six Months' Interest on \$2,050 United States Five-twenty Bonds, to 1st inst., Gold | 61.50 | |
| Jan. 1. | To received on sale of above Gold, at 19½ per cent. | 11.63 | |
| Jan. 6. | To received Six Months' Interest on City of Worcester Note of July 6, 1869 | 80.06 | |
| | | | \$18,461.74 |

etc.. in connection with Harvard University, in Annual Cash Account, Jan. 8, 1870. Cr.
1869.

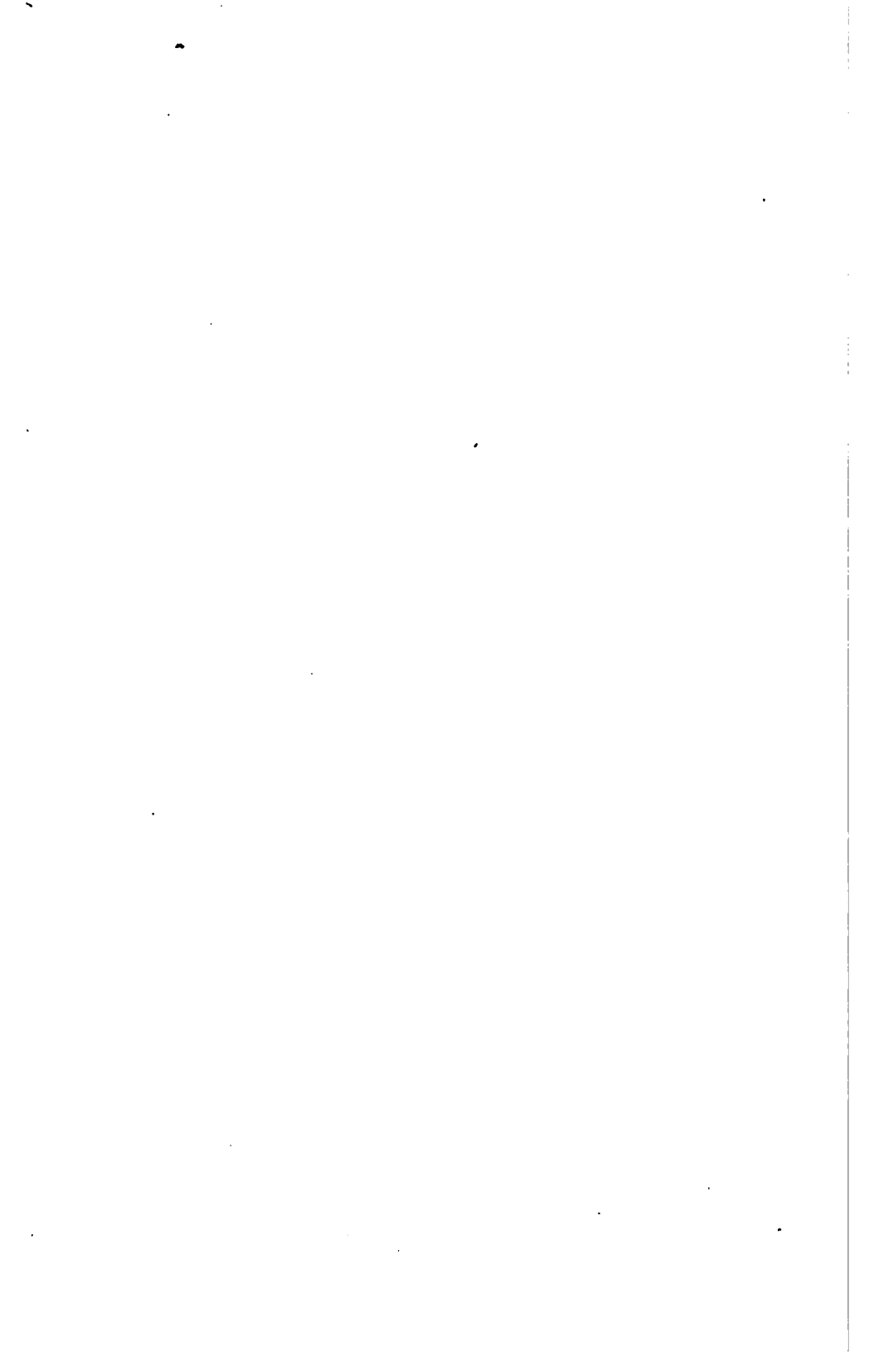
| | | | |
|----------|---|------------|------------|
| Jan. 16. | By paid Prof. J. Wyman, two years' Salary as Curator to 1st Inst. | | \$1,000.00 |
| July 2. | By paid G. G. Page, Bill of Boxes | \$50.00 | |
| July 6. | By paid City of Worcester Note on demand, Interest Seven per cent. per annum | 8,026.87 | |
| | | | 8,076.87 |
| July 28. | By paid A. A. Kingman, bill for printing Annual Report | | 96.00 |
| Aug. 8. | By paid C. O. Dunning, for Researches to be made in Tennessee | | 200.00 |
| Nov. 1. | By paid Cambridge Express Bill, for collection from mounds in Kentucky | \$24.92 | |
| Nov. 1. | By paid Bill of wharfage | .75 | |
| Nov. 1. | By paid Cambridge Express Bills, for collection of Boston Marine Society | 4.00 | |
| Nov. 1. | By paid Cambridge Express Bills, for Rose Collection from Denmark | 5.00 | |
| Nov. 1. | By paid F. W. Putnam, for McNeil Collection | 175.00 | |
| Nov. 1. | By paid Freights on Clement Collection | 38.59 | |
| Nov. 1. | By paid Bill of Warehouse | 8.00 | |
| | | | 251.26 |
| Nov. 9. | By Leavitt & Strebligh, for Alaska Collection | | 2,500.00 |
| | By paid Baring, Bros. & Co., London, in part of £525, due Jan. 14, 1870, R. C. Winthrop Bill Exchange, at sight, on Baring, Bros. & Co., for £258 15s. 8d., at 181¼ | \$1,500.62 | |
| | By paid Baring, Bros. & Co., London, Bill of £525, due Jan. 14, 1870, Kidder, Peabody & Co. Bill Exchange, 3 days from sight, on Mr. Callmont, for £268 4s. 8d. at 181¼ | 1567.67 | |
| | | | 8,068.29 |
| 1870. | | | |
| Jan. 5. | By Balance of Cash in hands of Treasurer | | 1,737.92 |
| 1869. | <i>For Building Fund.</i> | | |
| Apr. 1. | By paid for Worcester Water Bonds, due June 1, 1877, Interest Six per cent., from April 1, 1869, 2 each at \$1,000, 3 each at \$100, Nos. 123, 4, 5, 6, 7 | | \$2,300.00 |
| July 6. | By paid for City of Worcester Note on demand, Interest Seven per cent. per annum | | 2,287.85 |
| 1870. | | | |
| Jan. 5. | By paid for City of Worcester Note on demand, Interest Seven per cent. per annum | | 2,144.05 |

\$18,661.74

Boston, January 8, 1870.

I have examined the above account of Hon. Stephen Salisbury, Treasurer, and find it correctly cast, with proper vouchers for the same. I have also examined and counted the Bonds and Notes held as securities, and find them as above stated.

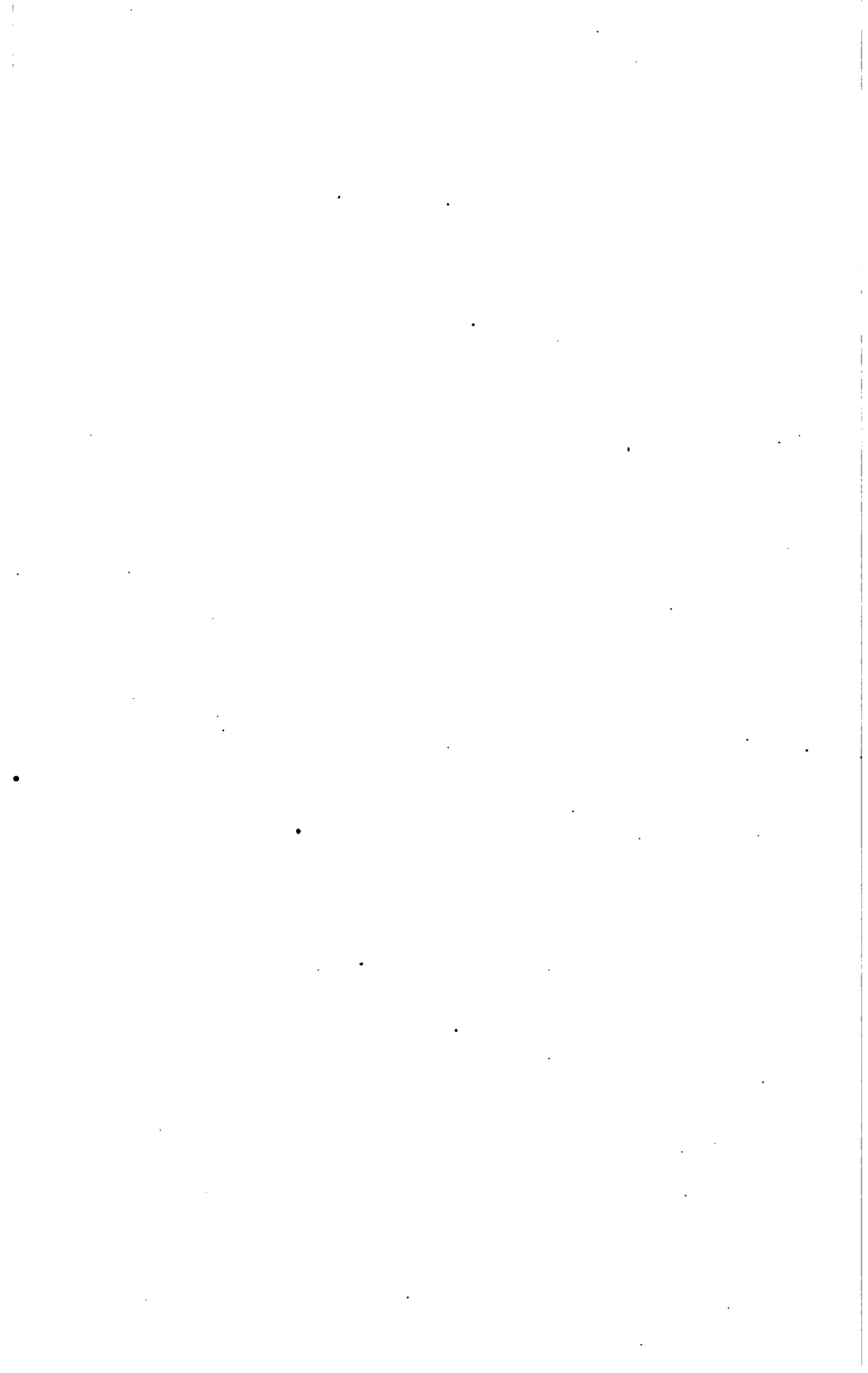
HENRY WHEATLAND, Auditor.



FOURTH ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, MAY 16, 1871.

BOSTON:
PRESS OF A. A. KINGMAN.
1871.



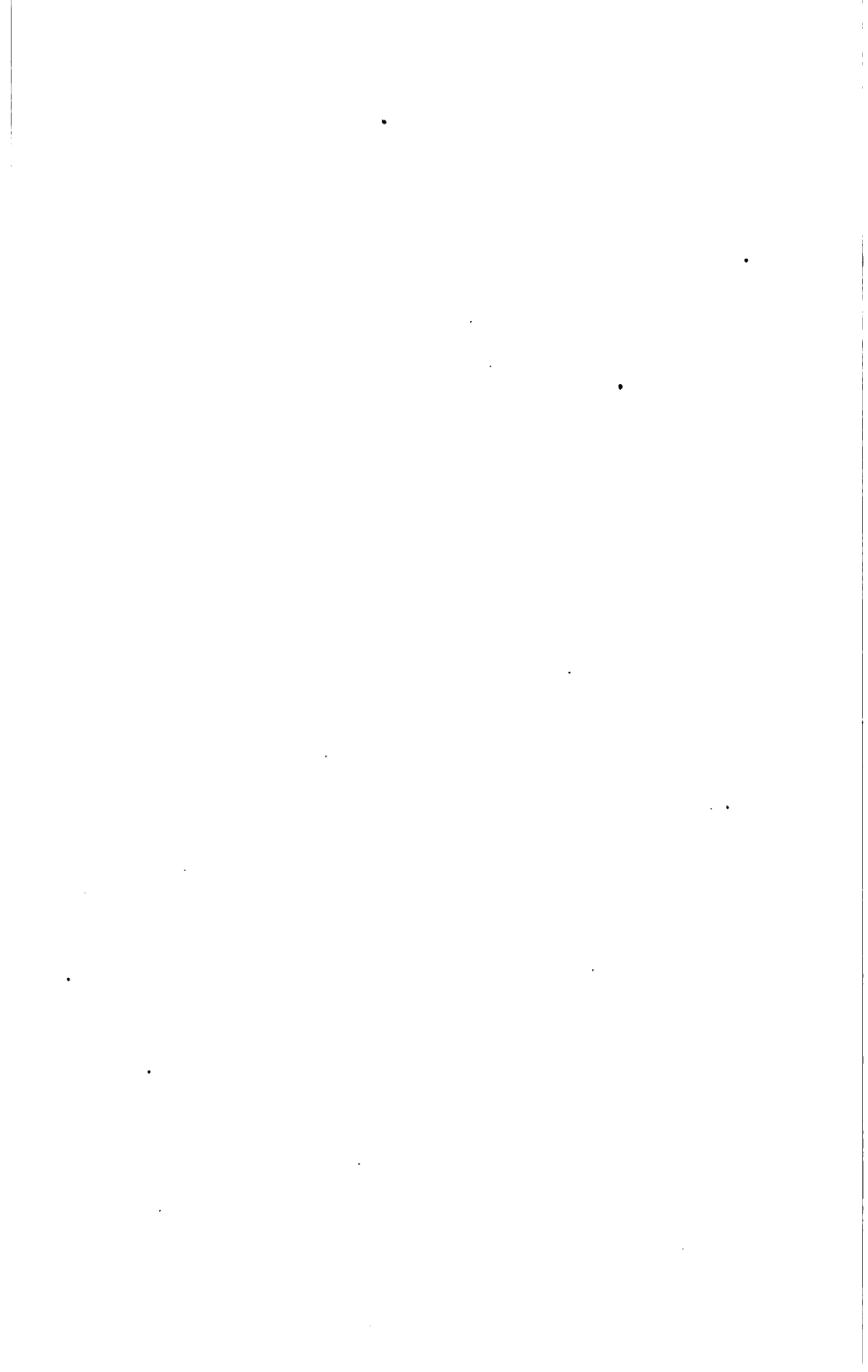
FOURTH ANNUAL REPORT.

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archaeology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Fourth Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

ROBERT C. WINTHROP.
CHARLES FRANCIS ADAMS.
STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
HENRY WHEATLAND.
GEO. PEABODY RUSSELL.

CAMBRIDGE, May 15, 1871.



REPORT OF THE CURATOR.

The Curator respectfully presents to the Trustees of the Peabody Museum of American Archæology and Ethnology the following report on the additions to the collections, with observations on the crania and other parts of the skeletons of the aborigines obtained from the ancient mounds.

I. CHARLES HAMMOND COLLECTION.

This was made by the gentleman whose name it bears, and is derived almost exclusively from the towns of Chatham and Rochester, Cape Cod, only a few of the objects having been obtained at Nahant and other localities. It was presented to the Museum by Mr. Hammond's nephew, Samuel H. Russell, Esq., Nov. 30, 1870. The collection has an especial value from the limited area over which it was made, thus giving a good idea of the nature and variety of the implements of stone manufactured by the Indians in the region mentioned. The objects it contains may be enumerated as follows :—

A mortar of soap stone (steatite), a series of axes, chisels, gouges, adzes, mauls, pestles, grooved stones probably used as weights to nets, "sinkers," hammer stones, spear points and perforated stones. Besides these, comprising between eighty and ninety objects, there are nearly three hundred arrow points of a very great variety of patterns and material. The "gouges," which are seldom found beyond the limits of the Eastern States, in this, as in other collections from New England are numerous and represented. The "sinkers" are also in considerable numbers, and vary in weight from a few ounces to several pounds. The "pestles" are obviously of two kinds, one being used in the ordinary way for pounding in a mortar and the other, as appears from

the wearing away and polishing of the side, for crushing and grinding grain on a flat stone, and in this respect resembling the implement used in Central America and Mexico. Specimens from New England showing this are to be seen in the collections of the Peabody Academy of Sciences in Salem. From these implements it would seem that the process of grinding was more common than has generally been supposed.

II. CHRISTY COLLECTION.

Mr. Augustus W. Franks, Conservator of the Christy Collection, in accordance with a wish expressed by the late founder, that a distribution of duplicates should be made among museums having kindred objects with the above institution, transferred to the curator, during a recent visit to London, a very valuable series of, in all, about one hundred and twenty-five objects. These consist of original specimens and casts of such from the celebrated rock shelters and cave dwellings at Les Eyzies, La Madelaine and Le Moustier in the department of Dordogne, France. The deposits in these localities were coeval with the period of the reindeer in Europe. The selection was made with the view of supplementing and making more complete the series from the same region, which the museum already possesses in the collection of M. de Mortillet.

The objects received consist of masses of breccia, from the floors of the caves, composed of the broken bones of the animals used as food, and of scales or chips of flint made in the manufacture of implements. These materials are mixed with a black earth, and all are cemented together by means of calcareous matter which has been deposited by infiltration. There are also implements made of bone and antler such as harpoon and spear points, awls, needles, etc., and pieces of the antler of the reindeer perforated with circular openings and variously ornamented with carvings. Lastly, there are numerous casts of pieces of bone with skilfully wrought ornaments and engravings representing many different kinds of animals, the species of most of which can be readily recognized.

Nearly all the objects coming from the French caves bear the label of C. Lartet, than which no better guarantee for their authenticity could be desired.

Besides the above specimens from France, there are other prehistoric objects of interest, including implements of stone from England,

and pieces of worked flint from Mt. Sinai and the Cape of Good Hope.

III. EXPLORATIONS IN TENNESSEE.

The Rev. E. O. Dunning has continued, in behalf of the Museum, his explorations in Eastern Tennessee during the past year, and reports from him have been received that large collections have been made which will be forwarded at an early date. One box has been received containing crania from ancient mounds, chiefly Macbee Mound near Strawberry Plains, Jefferson Co., various implements and ornaments buried with the dead, also numerous implements of stone from other localities. Among the objects buried with the dead are drinking cups and large pear shaped ornaments, supposed to be worn as gorgets, made from the shell of the *Pyrula*, also beads made of a species of *Oliva*, and of drilled pieces of the columella of the *Strombus gigas*. The above were undoubtedly derived from the Gulf of Mexico, and go to increase the evidence already existing that traffic in marine shells or in objects made of them was carried on, on a large scale, between the natives living on the shores of the Gulf and those inhabiting the borders of the Mississippi and its tributaries, as well as the shores of the great lakes.

IV. EXPLORATIONS IN CENTRAL AMERICA.

As was stated in the First Annual Report, Dr. Berendt, who at the time of its publication was about to embark for Central America, was authorized to make collections of such antiquities and ethnological objects as might be thought desirable for our museum. The commission was promptly attended to, but owing to some misunderstanding the boxes containing the results of his earliest labors were wrongly directed, and did not come into our possession until a few weeks since, when they were ascertained to be stored in the Custom House in New York. We have received eight boxes, containing about two hundred objects in terra cotta, consisting of vases, dishes, idols, etc., also specimens of the *matatés* or tables for grinding grain, and other implements of stone. The collection of terra cottas is extremely valuable, as showing the advanced state which the art of modelling in clay had reached among the ancient inhabitants of Central America. Some of the figures, if the pieces we have received

may be considered as an indication, were of life size. Still further results from Dr. Berendt's explorations are expected.

V. GIFTS.

In addition to the collections just described, the following gifts have been made to the Museum :—

Cast of a sculptured stone having a rude representation of a human face on the two sides. This was found by the donor on an old Indian camping ground near Wellfleet, Cape Cod, and is undoubtedly of Indian make. *Rev. B. F. DeCosta.*

A modern Indian vase from Guadalajara, Mexico ; fragments of ancient Indian pottery, from the Island of Sacraficios, Mexico, and a Moorish earthen lamp from Gibraltar. *Dr. Charles Martin, U. S. N.*

A collection of the bones of animals used as food, and other objects from the shell heaps at Hull's Cove, Mt. Desert, Me. *Dr. Samuel A. Greene.*

A collection of beads made of perforated discs of shell, of a species of *Marginella* used as beads, and portions of human bones, taken from the base of Big Mound at St. Louis, during excavations made in 1869. These objects are of a date coeval with the construction of the mound. Accompanying them is a communication from Prof. Nathaniel Holmes of the Dane Law School, giving the results of his own observations on Big Mound made several years since, and setting forth reasons for the supposition he then advocated that this mound was artificial and not natural as had been generally believed. *John F. Madison, Esq.*

A collection of shells and fragments of bones and pottery from the shell heaps of Damariscotta, Me. These were obtained by the donor in 1859 and were the first conclusive indications that the shell heaps were of Indian origin. *Prof. P. A. Chadbourne.*

Pieces of worked bone, a bone implement, and other objects from the shell-heaps of Mt. Desert, Me. *Prof. Alfred P. Rockwell.*

Cranium, also two tibiae, of an Esquimo obtained by the donor from a grave at Rigolette, N. W. River, Hudson's Bay Territory, Labrador. *Edward L. Parks, Esq.*

A collection of the remains of animals used as food from the shell heaps on Georges River, Maine. *Cleveland Abbe, U. S. Coast Survey.*

A grooved stone, similar to those used by the Indians, and now used by the fishermen of the Island of Capri as weights to their nets, to show the existence of the use at the present time of stone implements analogous to those used by the ancient races. *Prof. J. Wyman.*

Four grooved stones, similar to those used by the Indians. These were wrought by means of a piece of quartz held in the hand and used as a hammer, to show the effect of stone, as a tool, in working stone. *J. Wyman and M. Wyman, Jr.*

Two ancient Roman crania dug up in the presence of the donor. One of them is remarkable for its conical shape. *William J. Stillman, late U. S. Consul at Crete.*

An ancient stone tablet, with hieroglyphics. This was brought from Egypt by the late John Lowell, and presented by *John Amory Lowell, Esq.*

A stone chisel found on the banks of the Potomac and remarkable for its diminutive size, measuring only two inches in length. *Mr. Otto Pourtales.*

A pack of Indian cards, forty in number, used by the Ponto Apaches of Arizona. *Lieut. Duncan Sherman, U. S. Cavalry.*

Two card photographs of Indian pipes and other objects. *From J. H. Jenkins, Esq.*

Two photographs (stereoscopic) of Calchihuitls. *J. H. Lyman, Esq.*

VI. BOOKS AND PAMPHLETS.

Antiquités Préhistoriques du Danemark. L'Age de la Pierre. Par A. P. Madsen. Copenhagen, 1869. Folio. Plates.

Thorsbjerg Mosefund et Samlet Fund Fra Den Ældre Jernalder I Oldsagsamlingen I Flensborg. Beskrevet af Conr. Engelhardt. Kjöbenhavn, 1863. 4to. Plates.

Nydam Mosefund 1859-1863. Af Conr. Engelhardt. Kjöbenhavn, 1865. 4to. Plates.

Kragehul Mosefund 1751-1865, et Overgangsfund Mellem Den Ældre Jernalder Og Mellem-jernalderen. Af Conr. Engelhardt. Kjöbenhavn, 1867. 4to. Plates.

Fynske Mosefund, No. II. Vimose Funolet Af C. Engelhardt. Kjöbenhavn, 1869. 4to. Plates.

Memoires de la Société Royale des Antiquaires du Nord. Nouvelle Serie, 1867. Copenhagen. 8vo. Plates.

The same. 1868.

Nordiske Oldsager I Det Kongelige Museum I Kjöbenhavn. Ordnete og forklarede af J. J. A. Worsae. Kjöbenhavn, 1859. 8vo. Plates.

Danske Mindesmærker, Udgivne Af En Forening. Kjöbenhavn, 1860-1868. 13 parts. Folio. Plates.

Illustreret Tidende. Kjöbenhavn, den 10 April, 1870. Containing an account of a Runic inscription by K. N. H. Petersen.

Gustav Klemms Cultur historische Sammlung und ihr Erwerb sur Begründung Allgemeinen Anthropologischen Museums. Mittwech den 29 December, 1869.

The above works were obtained by purchase.

Collections of the Minnesota Historical Society. Vol. III, pt. I. St. Paul, 1870. From the Society.

Forty-one pamphlets pertaining to various subjects connected with Archæology and Ethnology have been presented to the Museum by *Augustus W. Franks, Esq.*, Conservator of the Christy Collection.

VII. OBSERVATIONS ON CRANIA AND OTHER PARTS OF THE SKELETON.

Crania. During the year comparative measurements of the crania from Peru, presented by Mr. Squier, of those from the mounds of Kentucky, obtained by Mr. Lyon, and from the mounds of Florida by the curator, have been completed, as also comparative measurements of the pelvis of the mound skeletons. A general summary of the results is contained in the accompanying tables.

The *Peruvian* crania present the two modes of artificial distortion commonly seen, those from chulpas or burial towers and other places in the neighborhood of Lake Titicaca being lengthened, while those from nearly all the other localities are broadened and shortened by the flattening of the occiput. They are, on the whole, massive and heavy. Many of the measurements usually recorded in describing ordinary crania have been omitted, since they would in those under consideration depend upon the degree to which the distortion has been carried, and would therefore give artificial and not natural dimensions.

We find nothing in these crania which sustains the view once admitted, but afterwards abandoned, by Dr. Morton, and more recently revived by Mr. John H. Blake and Dr. Daniel Wilson, in regard to the existence of naturally long (dolichocephalic) Peruvian skulls. Dr. Wilson bases his belief in the existence of such upon some crania in the collection of the late Dr. J. C. Warren, which Mr. Blake brought from Peru. He thinks their forms must be natural, because, in crania artificially distorted to the extent that these are, "the retention of anything like the normal symmetrical proportions is impossible." We find, however, that the lengthened Peruvian crania in our collection showing unequivocal marks of circular pressure, are, contrary to Dr. Wilson's opinion, quite symmetrical. Circular pressure could hardly produce any other than a symmetrical change of form. Through the kindness of Dr. John Collins Warren, we have been able personally to examine the crania above referred to in Dr. Warren's collection, and have been led to adopt the view of Dr. J. Barnard Davis, based on Dr. Wilson's figures, viz., that the lengthening in the alleged dolichocephalic Peruvians is artificial, since the indications of circular pressure are obvious.

Although the crania from the several localities, as seen in Tables I—VII, show some differences as regards capacity, *e. g.*, those from Casma, Cajamaquilla, and Truxillo as compared with those from

Grand Chimu, Amacavilca and Pachicamac, yet in most other respects they are alike. The average capacity of the fifty-six crania measured agrees very closely with that indicated by Morton and Meigs, viz., 1230 c.c., or 75 cub. inches, which is considerably less than that of the barbarous tribes of America, and almost exactly that of the Australians and Hottentots as given by Morton and Meigs, and smaller than that derived from a larger number of measurements by Davis. Thus we have, in this particular, a race which has established a complex civil and religious polity, and made great progress in the useful and fine arts, as its pottery, textile fabrics, wrought metals, highways and aqueducts, colossal architectural structures and court of almost imperial splendor prove, on the same level as regards the quantity of brain, with a race whose social and religious conditions are among the most degraded exhibited by the human race.

All this goes to show and cannot be too much insisted upon, that the relative capacity of the skull is to be considered merely as an anatomical and not as a physiological characteristic, and unless the quality of the brain can be represented at the same time as the quantity, brain measurement cannot be assumed as an indication of the intellectual position of races any more than of individuals. From such results the question is very naturally forced upon us whether comparisons, based upon cranial measurements of capacity as generally made, are entitled to the value usually assigned them. Confined within narrower limits they may perhaps be of more importance. But even in this case the results are often contradictory. If the brains of Cuvier and Schiller were of the maximum size, so were those of three unknown individuals from the common cemeteries of Paris—while that of Dante was but slightly above the mean, and Byron's was probably even below it.

The collection of mound crania from *Kentucky* made by Mr. S. S. Lyon, under the joint patronage of the Smithsonian Institution and this Museum, is by far one of the most valuable hitherto brought together. A comparison of these crania with those of the other and later Indians, shows that they have certain marked peculiarities, though these are doubtless better appreciated when the two kinds are placed side by side, than from any tables of measurement or verbal descriptions.

The twenty-four crania measured (Table VIII) show a mean capacity of 1313 cub. cent., which is greater than that of the Peruvians, but less than that of the N. American Indians generally (viz., 1376 c.c., or

84 cub. inches). They differ also from those of the ordinary Indians in being lighter, less massive, in having the rough surface for muscular attachments less strongly marked. The top of the head shows a moderately angular or roof-shaped arrangement of the parietal bones and the sides a vertical. In proportions they present a very considerable variation amongst themselves. Assuming the length of the skull to be 1,000, the breadth ranges from 0.712 to 0.950 of the length. The average proportion is 0.857, which places them in the short headed group. This result is influenced, but not to any great extent, by the fact that the crania have been somewhat distorted by a flattening of the occiput. In the majority this flattening is very slight, and is indicated by a nearly plane surface just above the protuberance, and which would not materially diminish the length of the skull. The position of the foramen magnum is quite far back. We have shown elsewhere that in the North American Indians generally, it is farther back than in the Negro and other races with which they have been compared. In the mound crania the distance of the anterior edge of the foramen magnum from the occiput is only 0.372 the long diameter of the skull. This position can be only partially due to distortion, since in the three skulls in which the foramen was farthest back the occiput was not in the least flattened.

Dividing the crania into two groups, according to the features which distinguish the sexes, the numbers of the two are about equal, and comparison of them shows a difference of 125 c. c. in favor of the males.

The separate bone at the apex of the occiput and known as the 'epactal,' or "bone of the Incas," exists in a somewhat smaller proportion than in the series of Peruvian crania presented by Mr. Squier. It is certainly found more frequently in the mound than in other crania of N. America, and is a point of resemblance to the Peruvian not to be overlooked, though it may be purely accidental.

The crania from *Florida* were nearly all obtained from a single burial place near Shell Mound, a few miles from Cedar Keys. Shell Mound is an ancient Indian shell-heap of gigantic proportions, forming an amphitheatre, in some places rising to the height of twenty feet, and enclosing an acre of land now under cultivation. If one may judge from the immense quantity of shells brought together, it must have been inhabited for a long period of time, as the limited space around it uncovered with water could afford habitations for only a comparatively small population. The burial place was on a neighbor-

ing island separated from it by a narrow channel. In some parts the general surface did not indicate the presence of a cemetery, but a few graves had, however, been opened before our excavations were made. Nearly all the crania here described were from a small mound of sand, in which the dead were deposited without any definite order, and the only objects buried with them being oyster shells, fragments of pottery and drinking cups made of the shell of *Pyrula*. In some cases two or three oyster shells were the only objects, and in no instance was any thing made by the white man detected, such as glass beads, etc. The burials were all of the rudest kind. No indications of approximate age of the mound were found, nor could information with regard to its history be obtained. The trees growing upon the mound were none of them more than a half a century old. The bones were all greatly decayed by the destruction of the organic matter, and it was only with the greatest care that they could be removed without injury or even complete destruction. When dried they acquired greater firmness but could only be preserved and handled after being immersed in gelatine.

The capacity of the skulls (Table IX) is 1375 c. c., nearly 84 cub. inches, and is greater than that of the mound crania. The foramen magnum is quite far back, its index being .374, very nearly the same as that of the crania just referred to, but there are no signs whatever of distortion. They are remarkable for massiveness and thickness. The average thickness through the parietal bones in eight of them amounting to 10.5 m. m., or 0.42 inch, or almost double the usual thickness, and in this respect they contrast very strikingly with skulls from the mounds, as they also do in the general roughness of the surfaces for muscular attachments on the hinder part of the head.

The skulls are quite heavy, but in consequence of the destruction of the bones of the face in most of them, the whole weight could be had in a single instance only. This happens to be the heaviest of the series, weighing 995 grams, and notwithstanding the loss of its organic matter, is heavier than any of the three hundred skulls of various races in our collection. The next heaviest are those of a Negro weighing 975 grams, of a Hawaiian islander weighing 845 grams (the average of 21 crania being 640 grams.), and of a Tsuktshi, weighing 860 grms.

TABLE I.

SIX CRANIA OF AYARRAS FROM BURIAL TOWERS OR CHULPAS, NEAR LAKE TITICACA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen. | Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|-------------------|---------|---------------|----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1445 | 490 | 178 | 138 | 154 | 98 | | | | | 284 | 368 | 386 | 130 | 128 | 127 | 144 |
| Mean | 1292 | 460.3 | 160 | 128.5 | 133.7 | 87.2 | .907 | 898 | | | 266.86 | 309 | 368 | 126.5 | 118.8 | 118 | 129.5 |
| Minimum | 1155 | 432 | 148 | 125 | 130 | 81 | | | | | 257 | 326 | 348 | 120 | 108 | 106 | 124 |
| Range | 290 | 58 | 25 | 11 | 24 | 12 | | | | | 27 | 32 | 88 | 10 | 20 | 21 | 20 |

TABLE II.

FOURTEEN CRANIA FROM CASMA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen. | Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|-------------------|---------|---------------|----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1455 | 482 | 171 | 156 | 140 | 97 | | | | | 286 | 363 | 382 | 123 | 129 | 145 | 143 |
| Mean | 1254 | 471.8 | 154 | 146 | 128.6 | 91.4 | .949 | 836 | | | 276.3 | 336.2 | 337 | 116 | 112.3 | 107.5 | 130.3 |
| Minimum | 1050 | 450 | 143 | 130 | 118 | 82 | | | | | 255 | 305 | 308 | 106 | 90 | 93 | 121 |
| Range | 405 | 82 | 28 | 26 | 22 | 15 | | | | | 30 | 47 | 54 | 13 | 39 | 52 | 22 |

TABLE III.

SIXTEEN CRANIA FROM AMACAVILCA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1320 | 491 | 159 | 149 | 134 | 100 | | | | 298 | 338 | 344 | 122 | 112 | 124 | 141 |
| Mean | 1176.2 | 460.3 | 149.7 | 144.1 | 129 | 92.4 | 932 | 861 | | 276.4 | 324.5 | 321.7 | 111.5 | 105.1 | 106.6 | 127.5 |
| Minimum | 1065 | 440 | 144 | 136 | 118 | 88 | | | | 265 | 303 | 300 | 102 | 87 | 97 | 99 |
| Range | 265 | 51 | 15 | 13 | 16 | 12 | | | | 41 | 35 | 44 | 20 | 25 | 27 | 42 |

TABLE IV.

SEVEN CRANIA FROM GRAND CHIMU.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1460 | 512 | 165 | 168 | 126 | 107 | | | | 306 | 357 | 350 | 128 | 119 | 115 | 143 |
| Mean | 1094.28 | 474.85 | 153.71 | 149.28 | 123.85 | 94 | 964 | 805 | | 279.71 | 331 | 316.57 | 114.57 | 108 | 108.14 | 131 |
| Minimum | 1065 | 440 | 137 | 131 | 117 | 83 | | | | 261 | 305 | 309 | 105 | 94 | 95 | 104 |
| Range | 395 | 72 | 28 | 37 | 9 | 24 | | | | 44 | 56 | 14 | 23 | 25 | 20 | 39 |

TABLE V.

FOUR CRANIA FROM PACHICAMAC.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1385 | 500 | 164 | 150 | 131 | 98 | | | | 294 | 331 | 342 | 120 | 117 | 126 | 140 |
| Mean | 1186 | 484 | 158.5 | 145.4 | 127.5 | 92.5 | 923 | 804 | | 231.5 | 326.75 | 336.5 | 118 | 111.25 | 113 | 136.33 |
| Minimum | 1035 | 472 | 155 | 142 | 119 | 83 | | | | 267 | 315 | 327 | 114 | 109 | 103 | 129 |
| Range | 350 | 28 | 9 | 8 | 12 | 15 | | | | 27 | 16 | 15 | 6 | 8 | 23 | 11 |

TABLE VI.

FIVE CRANIA FROM CAJAMARQUILLA.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen Magnum. | Frontal Arch. | Parietal Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1410 | 490 | 170 | 142 | 131 | 93 | | | | 287 | 332 | 361 | 125 | 120 | 119 | 139 |
| Mean | 1268.75 | 478.6 | 161.4 | 138.2 | 127 | 91 | 556 | 786 | | 278 | 322.6 | 347 | 117.4 | 115.4 | 113 | 122.8 |
| Minimum | 1155 | 459 | 160 | 136 | 125 | 88 | | | | 268 | 315 | 330 | 109 | 111 | 98 | 91 |
| Range | 255 | 31 | 20 | 6 | 6 | 5 | | | | 19 | 17 | 31 | 16 | 9 | 21 | 48 |

TABLE VII.
FOUR CRANIA FROM TRUXILLO.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen Magnum. | Frontal Arch. | Parietal Arch. | Occipital Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|-----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| Maximum | 1325 | 500 | 177 | 146 | 135 | 95 | | | | 294 | 330 | | 359 | 119 | 123 | 125 | |
| Mean | 1236 | 482.7 | 158.5 | 141.7 | 126.7 | 93 | 890 | 793 | | 290 | 326.2 | | 341.25 | 116.75 | 116 | 106.25 | |
| Minimum | 1135 | 473 | 150 | 132 | 117 | 90 | | | | 275 | 321 | | 324 | 114 | 110 | 195 | |
| Range | 190 | 27 | 27 | 14 | 18 | 5 | | | | 19 | 9 | | 35 | 5 | 13 | 20 | |

32

TABLE VIII.
THIRTY-EIGHT CRANIA FROM A MOUND IN KENTUCKY.

| | Capacity. | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foremen Magnum. | Frontal Arch. | Parietal Arch. | Occipital Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. | Zygomatic diameter. |
|---------|-----------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|-----------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| *24 | | | 37 | 38 | 36 | | | | | 38 | 38 | 36 | 29 | 38 | 36 | 29 | 33 |
| Maximum | 1540 | 512 | 179 | 159 | 142 | 103 | 950 | 895 | 451 | 317 | 350 | 253 | 367 | 131 | 127 | 130 | 15.1 |
| Mean | 1313.33 | 493 | 166.4 | 142.28 | 132 | 92.7 | 857 | 763 | 472 | 290.9 | 315.6 | 230.66 | 344.6 | 119.4 | 118.14 | 106.8 | 133 |
| Minimum | 1130 | 406 | 150 | 132 | 125 | 86 | 712 | 712 | 327 | 255 | 311 | 205 | 305 | 108 | 90 | 90 | 113 |
| Range | 306.67 | 106 | 29 | 27 | 17 | 17 | 228 | 183 | 124 | 62 | 39 | 45 | 62 | 23 | 37 | 40 | 38 |

* These numbers indicate the number of crania subjected to the measurement indicated in the respective columns.

TABLE IX.
EIGHTEEN CRANIA FROM FLORIDA.

| | Capacity.* | Circumf. | Length. | Breadth. | Height. | Breadth of Frontal. | Index of Breadth. | Index of Height. | Index of Foramen Magnum. | Frontal Arch. | Parietal Arch. | Occipital Arch. | Longitudinal Arch. | Length of Frontal. | Length of Parietal. | Length of Occipital. |
|---------|------------|----------|---------|----------|---------|---------------------|-------------------|------------------|--------------------------|---------------|----------------|-----------------|--------------------|--------------------|---------------------|----------------------|
| Maximum | 1670 | 540 | 189 | 157 | 143 | 108 | 888 | 860 | 400 | 368 | 364 | 247 | 386 | 135 | 140 | 141 |
| Mean | 1375.7 | 504.9 | 173.5 | 145 | 135.6 | 98.47 | 880 | 777 | 374 | 301.8 | 340 | 234.7 | 363.7 | 126.3 | 121.4 | 119 |
| Minimum | 1210 | 480 | 165 | 137 | 125 | 93 | 763 | 735 | 343 | 230 | 307 | 217 | 346 | 116 | 108 | 108 |
| Range | 360 | 60 | 24 | 20 | 27 | 15 | 95 | 115 | 579 | 68 | 57 | 80 | 49 | 19 | 32 | 33 |

* These numbers show the number of crania subjected to the measurement indicated in the respective columns.

SUMMARY OF MEASUREMENTS.

Fifty-six Crania from Peru. 1230.7 c. c. = 76 c. l.

Twenty-four Crania from Kentucky. 1313 c. c. = 80 c. l.

Seven Crania from Florida. 1375.7 c. c. = 84 c. l.

Bones of the Limbs. In the comparison of the skeletons of the different races, the proportions of the limbs and the measurement of their respective parts, especially of the arms, assume importance, since it has been clearly made out from various sources, but more especially from the recent and most valuable investigations of Dr. B. A. Gould, conducted on a much larger scale than any hitherto made, that there is in the blacks, as compared with the whites, a considerable increase in the relative length of the arms, in which respect the blacks approach the proportions of the apes, and the result confirms the previous observations of Lawrence, Broca, Pruner-Bey and others.

Dr. Gould has also studied the proportions of the limbs in five hundred and eight Iroquois, and has ascertained that in these, too, the arms are longer than in the whites, or even than in the mulattoes, but not so long as in the full blacks, and that this increase in length, as in the blacks, depends chiefly on the forearm and hand taken together.

All the measurements analyzed by him were made on the living body, and cannot therefore be very closely compared with these given in the table below, which are based on the collections of bones obtained from the mounds of Kentucky, and in which the hands and feet are not represented.

The former, however, serve as a guide as to some of the points to be kept in view in the present, as well as other comparisons, having for their object the determination of the anatomical characteristics of man.

INDIANS FROM THE MOUNDS.

| | H. | U. | R. | F. | T. | |
|----------|-----|-----|-----|-----|-----|------------------|
| | 28 | 21 | 18 | 84 | 28 | Humerus = 1.000. |
| | | | | | | Ulna = 0.816. |
| Maximum, | 337 | 284 | 270 | 479 | 397 | Radius = 0.758. |
| Minimum, | 283 | 214 | 215 | 383 | 317 | Femur = 1.000. |
| Mean, | 310 | 253 | 235 | 438 | 363 | Tibia = 0.829. |

WHITES.

| | H. | U. | R. | F. | T. | |
|----------|-----|-----|-----|-----|-----|------------------|
| | 16 | 24 | 20 | 18 | 15 | Humerus = 1.000. |
| | | | | | | Ulna = 0.804. |
| Maximum, | 352 | 289 | 272 | 500 | 430 | Radius = 0.754. |
| Minimum, | 290 | 230 | 214 | 391 | 315 | Femur = 1.000. |
| Mean, | 322 | 259 | 243 | 439 | 369 | Tibia = 0.840. |

The numbers at the top of the columns indicate the number of bones of each kind measured. In making the measurements the whole length of each bone is included. Bones from one side of the body only are used and therefore represent individuals.

From the above table it will be seen that the ulna and radius, as compared with the humerus, are longest in the mound Indians, and the length of the tibia, when compared with the femur, is greatest in the whites. But the length of the forearm in the mound skeletons is not so great as the results obtained by Dr. Gould would lead us to expect, if the same proportions prevailed as now exist in the Iroquois. As the number of the measurements here recorded is sufficient to give a good average, it would seem that the proportions were really different, and that those buried in the mounds more closely resembled the whites in the relative length of the fore and upper arms. In the recent skeleton of a large male Sioux we found the ulna 0.819, and the radius 0.775 of the humerus; the first two bones, consequently, as in the Iroquois, are longer than in the mound skeletons. The same is true of an Illinois measured by Dr. Davis, in which the ulna is 0.864, and the radius 0.803 of the humerus. Dr. Davis has also given the measurements of these parts in four Australians, which may be introduced here as a contrast to the recent Indian and the Negro. In the four the average length of the ulna is 0.789, and of the radius 0.746 of the humerus. These bones are therefore shorter than in the whites, according to the preceding tables.

Perforation of the Humerus.—Dr. Charles T. Jackson, many years since, called attention to the fact that in several Indian skeletons observed by him, the two fossæ at the lower end of the humerus communicated. Similar observations have since been made by Dr. J. B. S. Jackson and others and specimens showing this peculiarity are preserved in the Warren Anatomical Museum. This condition of the humerus has especial interest, since it is also met with in other races, and also in the apes.

Among the collections of human remains from the ancient mounds of the Western States and of Florida preserved in this museum, there are eighty specimens of the humerus, all unquestionably Indian. Of these, twenty-five, or about 31 per cent. are perforated and the rest not. This character is rarely met with in the white races, and of fifty-two specimens expressly examined for the purpose, it was present only in two.

In the black races it is present in larger numbers, though we know

of no exact observations which show its frequency. Of seven skeletons of pure Negroes in the Garden of Plants in Paris, just one-half of the fourteen upper arm bones were perforated. In the apes, though quite general, it is not constant, as in two large male Gorillas we have found it on one side only, and in an adult female Chimpanzee, it was wanting on both sides, and according to Mivart was wanting in one of the skeletons of an Orang in the British Museum.

Flattening of the Tibia. Among the peculiarities of the ancient races of the old world the flattened or sabre-shaped tibiæ found in the dolmens of Chamont and Maintenon, the quaternary drift of Clichy, and the burial caves of Cro-Magnon and Gibraltar, have attracted especial attention on account of their marked deviation from what is seen in the modern European races, and also on account of their alleged resemblance to the corresponding bones of the apes. This flattening, however, does not appear to have been universal during the reindeer period in Europe, since there are other instances, as in the caves of Belgium, where the bones in question, of this same age, have the ordinary shape. On the other hand Mr. Busk states that all the tibiæ from the caves of Gibraltar were flattened.

The existence of such flattening among the aborigines of N. America has not, in so far as we have been able to learn, been noticed hitherto, but from materials belonging to the Peabody Museum, there is no doubt that it prevailed largely, but in a variable degree. It is easily recognized in the large series of bones obtained from the mounds of Kentucky by Mr. Lyon, also in those from the mounds and caves of Tennessee by Mr. Dunning, from a mound in Michigan by Mr. Gillman and from mounds in Florida by the writer. Dr. George A. Otis informs me that he has observed a similar flattening in some of the bones from western mounds, belonging to the ethnological series of the Army Medical Museum at Washington. The flattening results, as it were, from the compression of the bone from side to side, so that either the hinder of the three faces makes a more open angle with the inner, or, in addition, is bent upon itself near the middle, thus making the transverse section of the tibia four instead of three sided, and in either case giving it a sharp edge on the hinder as well as the fore part.

Of the tibiæ of forty individuals from the mounds of Kentucky, one-third presented this flattening to the extent that the transverse did not exceed 0.60 of the fore and aft diameter. The most extreme case was from the mound on the River Rouge in Michigan, in which

the transverse diameter was only 0.48. In the most marked case mentioned by Broca, *viz.*, in the old man from Cro-Magnon, it was, as deduced from his figures, 0.60.

This flattening of the tibia can hardly be considered a race character, since it is found in only about one-third of all the individuals observed and in these in variable degrees. That in the proportions of the two diameters, as stated by Broca, these tibiæ resemble those of the apes there can be no doubt, and the resemblance is still more striking in a smaller number of instances in which the bone is bent and is strongly convex forwards, and its angles so rounded as to present the nearly oval section seen in the apes. The anatomist, however, will not fail to recognize the fact that in the relative length of the bone, in the lines corresponding with the muscular attachments, in the direction of the crest and the forms of the articular portions of the bone, the human characteristics are unchanged and that there is therefore no assimilation to the apes in these respects. In some of the tibiæ the amount of flattening surpasses that of the gorilla and chimpanzee, in each of which we found the short 0.67 of the long diameter, while in the tibia from Michigan it was only 0.48.

From a comparison of the skeleton of the human races, as far as made, it is quite clear that in several respects some of them have peculiarities which seem to assimilate them to the apes. These peculiarities are not, however, confined to a single race, but are distributed in different degrees through several, and it is not improbable that future studies will show a still greater variety of resemblances, and a wider distribution of them, than is now known. The increased length of the forearm, as compared with the humerus, is almost equally shared by the blacks and the recent Indians. The Indians, from the mounds of various parts of the country, as well as the inhabitants of the ancient cave dwellings of Europe, have the flattened tibia. The Indians, ancient as well as modern, in common with the Hawaiian Islanders, have the most backward position of the foramen magnum, while the Negro, on the other hand, with his lengthened forearm, has this foramen almost as central as in the white man. The small brain is not, as might at first well be supposed to be the case, found in the most degraded races alone, but in these, in common with a race which had, as already stated, risen to a semi-civilization; nor is it constantly associated with the lengthened forearm, since in the Australians this is even shorter than in the white man. From these results it seems obvious that we cannot give to the alleged resem-

blances between the human races and the apes their full meaning, until we have much wider comparisons than have as yet been made.

Pelvis. After the cranium there is no part of the skeleton which deserves the attention of ethnologists more than the pelvis. The first is closely related to the brain and organs of sense, and the second to the attitude and movements of the body, as well as the process of gestation. The pelvis, too, in consequence of this relationship, shows more strikingly than any other part, beside the skull, the first structural deviations of the brute from the human races. While the pelvis of the European and some of the savage races, has received much attention, that of the American Indian has received but little.

In the collection obtained by Mr. Lyon from the mounds of Kentucky, we have the pelvis of twelve individuals, five males and seven females, sufficiently well preserved to admit of measurement, the results of which are to be found in the following table.

MEASUREMENTS OF THE PELVIS.

(The lengths are in millimeters).

| | Indians. 5 Males. | Indians. 7 Females. | White. 12 Males. | White. 4 Females. |
|---|-------------------------|---------------------------|------------------------|-------------------------|
| Breadth of pelvis across ilia | 261 | 262 | 265 | 264 |
| Height of innominate bone | 200 | 194 | 216 | 192 |
| Breadth of ilium | 145 | 149 | 161 | 150 |
| Fore and aft diameter of true pelvis | 104 | 109 | 100 | 104 |
| Oblique " " " | 121 | 123 | 118 | 119 |
| Transverse " " " | 127 | 133 | 128 | 129 |
| Distance between tuberosities of ischia | 108 | 123 | 100 | 118 |
| From end of sacrum to tuberosity of ischium | 80 | 89 | 74 | 86 |
| End of sacrum to pubes, under side. | 120 | 123 | 118 | 120 |
| Length of sacrum in a straight line and without coccyx. | 97 | 106 | 104 | 98 |
| Length of sacrum following curve | 103 | 101 | 116 | 108 |
| Breadth of sacrum | 116 | 117 | 116 | 115 |
| Depth of true pelvis | 97 | 92 | 102 | 91 |

For the purpose of comparison the measurements of the pelvis of sixteen whites, twelve males and four females, are given in the last two columns.

The comparison shows that the breadth of the European pelvis and

of its innominate bone in both sexes is greater than that of the Indians. The height of the pelvis in both races is greatest in the males, and that of the whites is greater than that of the Indians. The height of the pelvis in the females of both races is almost the same.

The three diameters of the brim of the true pelvis of both sexes are greatest in the Indians. The average diameter of the brim in the females is, for the white, 117.3 m.m., and for the Indian, 121.6 m.m. The same diameter for the males is for the whites 115.3 m.m., and for the Indian 117.3. In the Indian the transverse diameter is much the largest in both sexes, and the inlet is triangular.

The size of the outlet of the pelvis is greatest in the Indian. The breadth of the sacrum is almost exactly the same in both sexes of both races, but the sacrum of the Indian is the least curved.

The conditions which facilitate the process of parturition are, as far as they go, the most favorable in the Indian woman.

The depth of the true pelvis of the male is greatest in the European, while that of the female pelvis is almost the same in the two races and less than in the males.

There is no approach in the Indian pelvis to that of the apes. This last is characterized by having the height greater than the breadth, the fore and aft diameter greater than the transverse, and in having the sacrum longer than broad. The Indian pelvis shows the reverse of all this.

Marks of Disease. Among the bones from different sections of the country, viz., the mounds of Florida, Tennessee and Kentucky, also from the caves of Tennessee, the indications of disease are quite numerous. They consist chiefly of the results of periosteal inflammations, in some cases leaving only superficial effects, in others, the inflammation having assumed a chronic form, has extended through the whole thickness, causing an obliteration of the marrow cavity, and a deformity and general increase of the bulk of the bone. In a large proportion of the cases the disease was confined to the tibia.

Diseases of the joints, involving a destruction of the articular cartilages and the wearing of the bones on each other, and the peculiar outgrowths, especially around the bodies of the vertebræ, similar to those associated with chronic rheumatic affections, have been noticed, the latter quite frequently. Of fractures we have seen only a well united fracture of the radius, and two old ununited fractures of the arches of the lower lumbar vertebræ.

J. WYMAN, *Curator.*

REPORT OF THE TREASURER.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology in connection with Harvard University:

The Treasurer respectfully presents his Fourth Annual Report in the following abstracts of accounts, and the cash account hereto annexed:—

The Collection Fund is charged with

| | |
|--|--------------------|
| 9 Massachusetts Five per cent. Coast Defence Specie Notes, due July 1, 1888, each \$6,000, number 46 to 54, registered, the gift of George Peabody, Esq. | \$46,000.00 |
| Income from above Notes in currency | 2,496.09 |
| Income from 9 Massachusetts Five per cent. Specie Notes of Professor Fund | 2,496.10 |
| Income from Investments by the Treasurer | 86.98 |
| Balance of Treasurer's account, settled Jan. 8, 1870 | 1,787.92 |
| | <u>\$51,817.09</u> |

And Collection Fund is credited with

| | |
|---|--------------------|
| Payment to Professor Jeffries Wyman, as Curator | \$1,000.00 |
| Payment to Rev. C. O. Dunning for Researches in Tennessee | 800.00 |
| Payment to Barings, Bros. & Co., for comm. on 10,000 frs. for Clement Collection | 22.55 |
| Payment for incidental Expense | 80.00 |
| Payment to Hon. R. C. Winthrop for Books from Copenhagen | 44.26 |
| Payment to Porter C. Bliss, Esq., for Explorations in Mexico | 250.00 |
| Balance of Worcester and Nashua Railroad Co.'s Note, Feb. 17, 1870, on demand, Interest Six per cent. | 156.80 |
| City of Worcester Note, Jan. 4, 1871, on demand, Seven per cent. Interest | 5,018.48 |
| 9 Massachusetts Five per cent. Specie Notes as above | 45,000.00 |
| | <u>\$51,817.09</u> |

The Professor Fund is charged with

| | |
|---|--------------------|
| 9 Massachusetts Five per cent. Specie Notes, as above, each \$5,000, registered number 56 to 68, the gift of George Peabody, Esq., the income being appropriated to Collection Fund, as the Professorship is not filled | <u>\$45,000.00</u> |
|---|--------------------|

The Building Fund is charged with

| | |
|--|--------------------|
| 12 Massachusetts Five per ct. Specie Notes, as above, each \$5,000, registered number 64 to 75, the gift of George Peabody, Esq. | \$60,000.00 |
| Income from above Notes in currency | 3,464.55 |
| 8 United States Five-twenty Bonds of July 1, 1867, 2 of \$1,000, 1 of \$50 | 2,050.00 |
| 9 Worcester Water Bonds, due June 1, 1877, at Six per cent. | 4,500.00 |
| 8 Worcester Sewer Bonds, due June 15, 1877, at Six per cent. | 2,100.00 |
| One City of Worcester Note, Jan. 6, 1870, on demand, Seven per cent. Interest | 2,144.05 |
| Repayment of City of Worcester Note, July 6, 1869 | 2,287.85 |
| Income from Investments of Treasurer | 768.98 |
| | <u>\$77,812.98</u> |

And Building Fund is credited with

| | |
|--|--------------------|
| 6 Worcester and Nashua Railroad Co. Five-ten Seven per cent. Bonds of Dec. 31, 1870. | \$6,000.00 |
| Payment of accrued Interest on above Bonds. | 2.18 |
| City of Worcester Note, Jan. 4, 1871, on Demand, Interest Seven per cent. | 515.87 |
| 9 United States Five-twenty Bonds of July 1, 1867, as above | 2,050.00 |
| 9 Worcester Water Bonds, due June 1, 1877, as above | 4,500.00 |
| 8 Worcester Sewer Bonds, due June 15, 1877, as above | 2,100.00 |
| One City of Worcester Note, Jan. 6, 1870, on demand, Interest Seven per cent. | 2,144.05 |
| Cash in the hands of the Treasurer | .88 |
| 12 Massachusetts Five per cent. Specie Bonds, as above | 60,000.00 |
| | <u>\$77,812.98</u> |

The Investments of the

| | |
|--|---------------------|
| Collection Fund, at par, amount to | \$50,170.28 |
| Professors Fund, at par | 45,000.00 |
| Building Fund, at par | 77,810.75 |
| | <u>\$172,481.03</u> |

STEPHEN SALISBURY, *Treasurer.*

Boston, Jan. 12, 1871.

Dr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archaeology*

1870.

For Collection Fund.

| | | | |
|----------|--|------------|-----------|
| Jan. 8. | To balance of Cash in the hands of the Treasurer | | \$1737.92 |
| July 6. | To received Six Months' Interest on \$45,000. Massachusetts Five per cent. Notes, to 1st inst., Gold | \$1,125.00 | |
| | To received on sale of above, \$1,125, Gold, at 11¼ per ct. | 126.56 | |
| | To received Six Months' Interest on \$45,000. Massachusetts Five per cent. Notes of Professor Fund, Gold | 1,125.00 | |
| | To received on sale of above Gold, \$1,125, at 11¼ per ct. | 126.56 | |
| | | | 2,503.12 |
| Aug. 22. | To received Six Months' Interest on Worcester and Nashua Railroad Co's Note of Feb. 17, 1870. | 13.14 | |
| Aug. 22. | To received in part of principal of same | 81.12 | |
| | | | 94.26 |
| Aug. 24. | To received in part of principal of same | | 200.00 |
| 1871. | | | |
| Jan. 2. | To received Six Months' Interest on \$45,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | \$1,125.00 | |
| Jan. 2. | To received on sale of above \$1,125, Gold, at 10½ per cent. | 119.53 | |
| Jan. 2. | To received Six Months' Interest on \$45,000 Massachusetts Five per cent. Notes of Professor Fund, Gold. | 1,125.00 | |
| | To received on sale of above \$1,125, Gold, at 10½ per ct. | 119.54 | |
| | | | 2489.07 |
| Jan. 4. | To received amount of Worcester Note of July 7, 1870, \$2503.12, Interest \$73.84. | | 2,576.96 |

1870.

For Building Fund.

| | | | |
|----------|--|------------|-------------------|
| July 5. | To received Six Months' Interest on Worcester Sewer Bonds, to June 15 | \$63.00 | |
| July 5. | To received Six Months' Interest on Worcester Water Bonds to June 1 | 135.00 | |
| July 5. | To received Six Months' Interest on Worcester Note of July 6, 1869, at Seven per cent. | 80.06 | |
| July 5. | To received Six Months' Interest on Worcester Note of Jan. 6, 1870, at Six per cent. | 75.04 | |
| | | | \$333.10 |
| July 6. | To received Six Months' Interest on \$60,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | \$1,500.00 | |
| July 6. | To received on sale of above \$1,500, Gold, at 11½ per ct. | 168.75 | |
| July 6. | To received Six Months' Interest on United States Five-twenty Bonds, \$2,050, to 1st inst., Gold | \$61.50 | |
| July 6. | To received on sale of above \$61.50, Gold, at 11½ per ct. | 6.91 | |
| | | | 1,737.16 |
| Dec. 30. | To received Six Months' Interest on Worcester Water Bonds, to 1st inst. | \$135.00 | |
| Dec. 30. | To received Six Months' Interest on Worcester Sewer Bonds, to 15th inst. | 63.00 | |
| | | | 198.00 |
| 1871. | | | |
| Jan. 2. | To received Six Months' Interest on \$60,000 Massachusetts Five per cent. Notes, to 1st inst., Gold | \$1,500.00 | |
| Jan. 2. | To received on sale of above \$1,500, Gold, at 10½ per ct. | 159.38 | |
| Jan. 2. | To received Six Months' Interest on \$2,050 United States Five-twenty Bonds, to 1st inst., Gold | 61.50 | |
| Jan. 2. | To received on sale of above \$61.50, Gold, at 10½ per ct. | 6.51 | |
| | | | 1,727.39 |
| Jan. 4. | To received Amount of Worcester Note, July 6, 1869, \$2,287.35, Interest at Seven per cent., \$79.17 | | 2,366.52 |
| Jan. 4. | To received Interest on Worcester Note, Jan. 6, 1870, \$2,144.05 at Seven per cent., to 6th inst. | | 75.0 |
| Jan. 4. | To received. Amount of Worcester Note. July 7, 1870, \$2,090.23 at Six per cent., \$61.67 | | 2,151.98 |
| | | | <u>\$18,210.4</u> |

etc., in connection with Harvard University, in Annual Cash Account, Jan. 12, 1871. Cr.

1870.

For Collection Fund.

| | | | |
|----------|--|----------|------------|
| Jan. 12. | By paid Prof. J. Wyman, as Curator, one year's Salary to 1st inst. | \$500.00 | |
| Jan. 13. | By paid Prof. J. Wyman, as Curator, on salary for 1871 | 500.00 | |
| | | | \$1,000.00 |
| Jan. 17. | By paid Rev. C. O. Dunning, in advance, for Researches in Tennessee | | 300.00 |
| Jan. 15. | By paid rent of safe deposit one year, to Feb. 1, 1871 | | 30.00 |
| Feb. 17. | By paid for Worcester and Nashua Railroad Co.'s Note, on demand, at Six per cent. | | 437.92 |
| May 18. | By paid Baring, Bros. & Co., comm. on 10,000 frs. for Clement Collection, by Hon. R. C. Winthrop | | 22.55 |
| July 6. | By paid for City of Worcester Note on demand, at Six per cent. | | 2,508.12 |
| July 18. | By paid Porter C. Bliss, Esq., in part for Grant for Explorations in Mexico | | 50.00 |
| July 25. | By paid Hon. R. C. Winthrop for paid for Books | | 44.26 |
| Aug. 24. | By paid Porter C. Bliss, Esq., in part, for Grant for Explorations in Mexico | | 200.00 |
| 1871. | | | |
| Jan. 4. | By paid for City of Worcester Note, on demand, at Seven per cent. | | 5,013.48 |

1870.

For Building Fund.

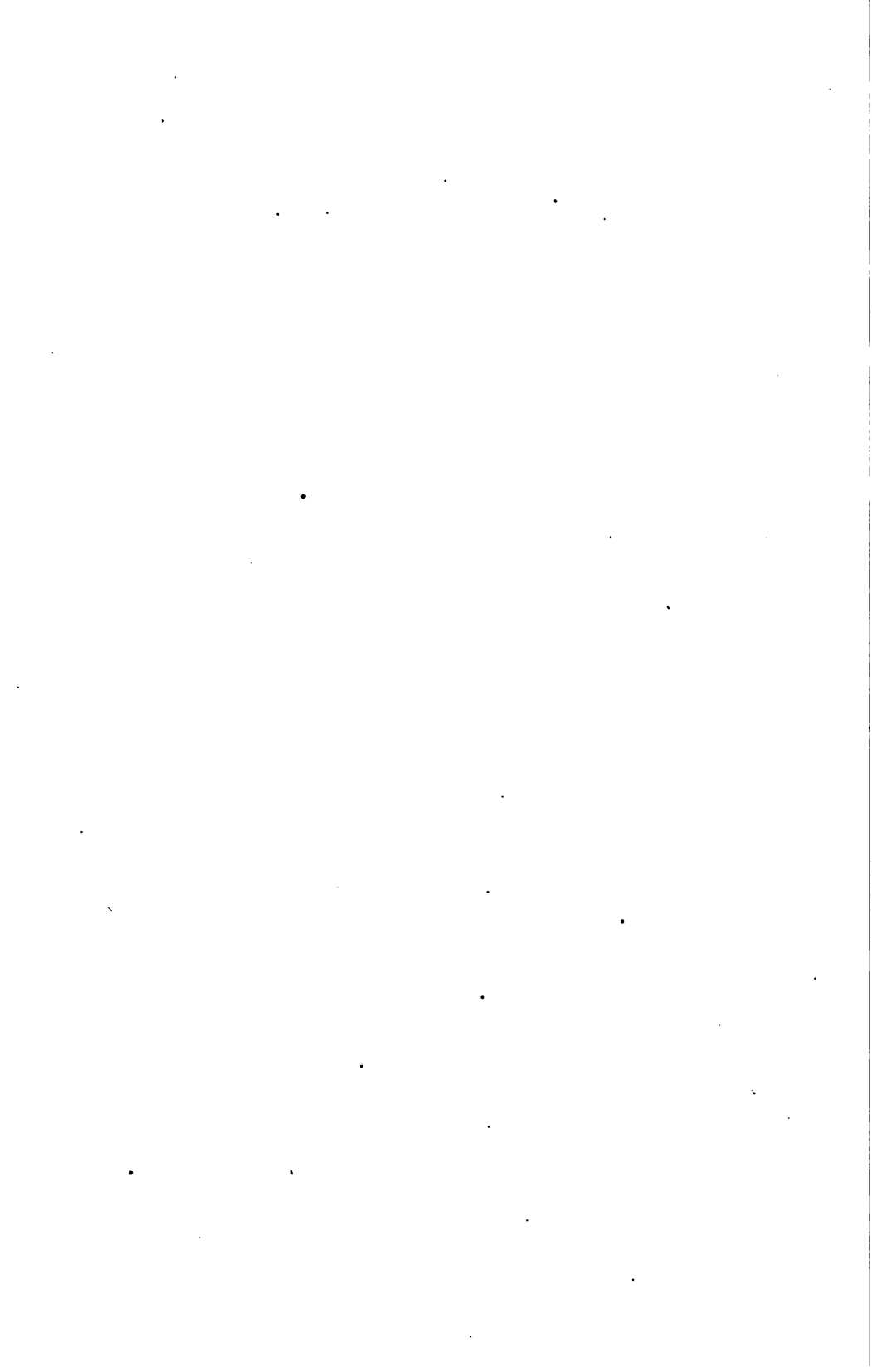
| | | | |
|----------|---|------------|------------|
| July 7. | By paid for City of Worcester Note, on demand, at Six per cent. | | \$2,090.26 |
| 1871. | | | |
| Jan. 3. | By paid for Worcester and Nashua Railroad Co.'s Five ten Seven per cent. Bonds, dated Dec. 31, 1870 | \$6,000.00 | |
| Jan. 3. | By paid for accrued interest on said Bonds | 2.18 | |
| | | | 6,002.18 |
| Jan. 4. | By paid for City of Worcester Note, on demand, at Seven per cent. | | 515.87 |
| Jan. 12. | By Cash in the hands of the Treasurer | | .83 |

\$18,210.47

Boston, January 12, 1871.

I have examined the above account of Hon. Stephen Salisbury, Treasurer, and find it correctly cast, with proper vouchers for the same. I have also examined and counted the Bonds and Notes held as securities, and find them as above stated.

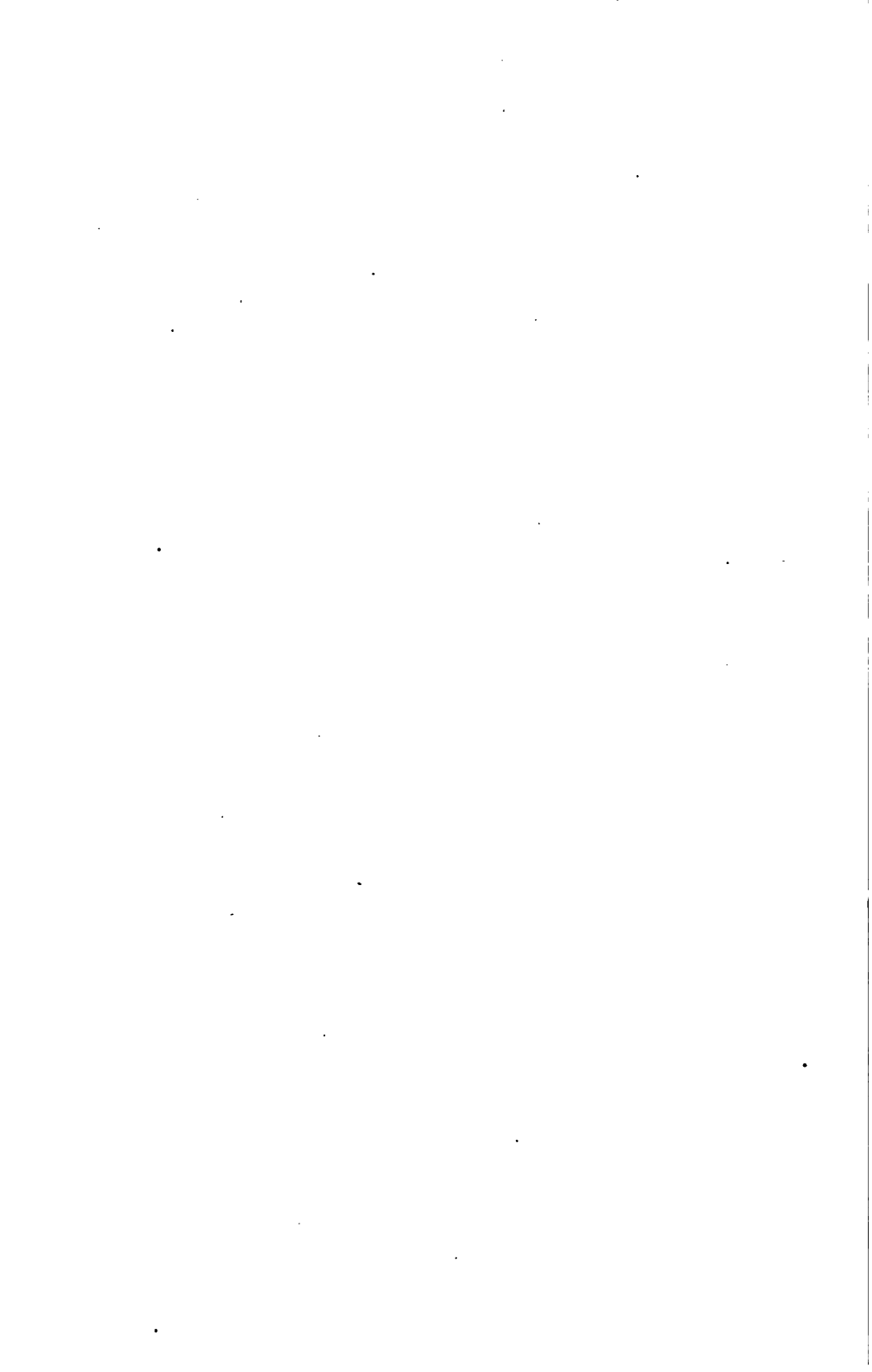
HENRY WHEATLAND, Auditor.



FIFTH ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, MAY 15, 1872.

BOSTON:
PRESS OF A. A. KINGMAN.
1872.



FIFTH ANNUAL REPORT.

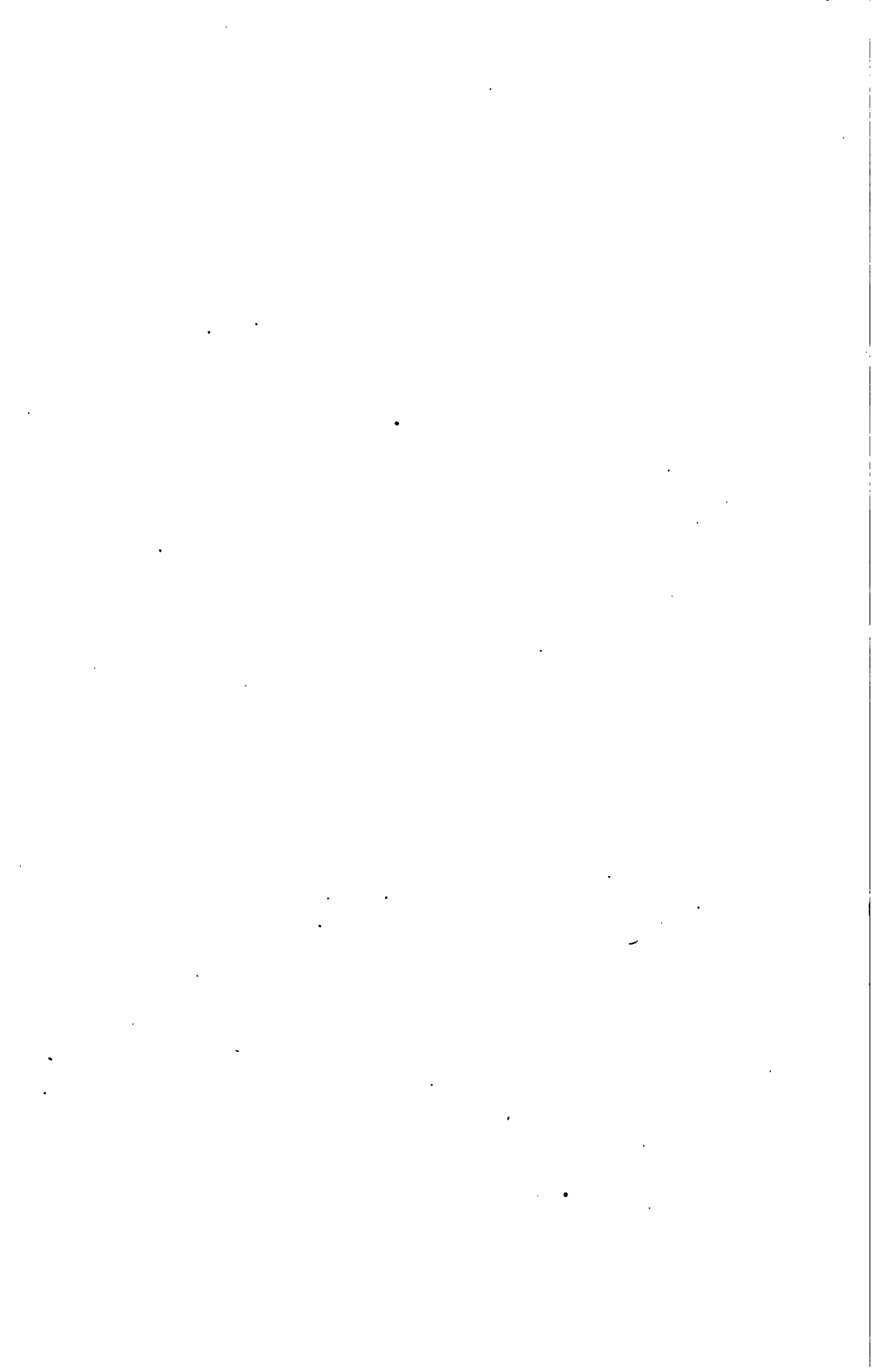
TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archaeology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Fifth Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

ROBERT C. WINTHROP.
STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
HENRY WHEATLAND.

CAMBRIDGE, May 15, 1872.

NOTE.—Hon. C. F. ADAMS and GEO. PEABODY RUSSELL, Esq., were in Europe at the time of the annual meeting.



REPORT OF THE CURATOR.

To the Trustees of the Peabody Museum of American Archæology and Ethnology:—

THE Curator respectfully presents to the Trustees of the Peabody Museum of American Archæology and Ethnology the following report on the collections of the Museum.

As in previous years, the collections have been stored in Boylston Hall, but in consequence of the insufficient conveniences have not been exhibited to the public. With the exception of the collection of Dr. Clement, which has been too recently received to admit of it, all the objects have been catalogued, following the excellent plan devised by Prof. Baird, and adopted by the Smithsonian and many other Institutions. In the *numerical* catalogue are indicated the locality, the source, whether from gift or purchase, if the former, the donor's name, the name of the collector, and the times when collected and received. When any further information is to be recorded, or any remarks are needed in connection with the objects, they are entered against the corresponding number in the *descriptive* catalogue. Each specimen bears a number, and is entered against the same number in two catalogues. The whole number of entries at this time is 4833. This, however, is not to be taken as an indication of the whole number of objects, for when there are duplicates from the same source and the same locality, all such duplicates bear the same number, which is all that is necessary to enable one to identify them, and to refer them to their histories. The number of duplicates is often large, and sometimes, as is the case with arrow heads, flint flakes, and several other kinds of objects, amounts from one to more than two hundred. To give each of these a separate number and entry would

expand the catalogue to an unnecessary and unwieldy size. A single series of numbers extends through the whole collection.

When collections are received which are already numbered and catalogued, the indications of the objects are transferred to our catalogue, the original number being entered against the number in our series. In this way there is a double clue to the identification of all such specimens, and in all cases the possibility of the confusion of objects is avoided.

The collections have been enlarged by additions from the following sources.

I. CLEMENT COLLECTION.

In 1868 the Chairman of this Board, then in Europe, obtained by purchase for the Museum a part of the archæological collection made by the late Dr. Clement of St. Aubin. As it was thought desirable by the Trustees to secure the remainder, negotiations for the purchase of it were completed during the past year, and the whole is now in our possession. On this, as on a former occasion, the Museum has been greatly aided by the eminent naturalist and archæologist, Prof. Desor, and would hereby gratefully acknowledge its indebtedness to him for the interest he has taken in our behalf, and for the time and service he has given us.

Dr. Clement devoted himself for many years to the study of the ancient dwellings of Lake Neuchatel, and especially to those at St. Aubin and Concise. The zeal with which he gave himself to these investigations, and the consequent exposure, led to impaired health, and at last to the development of disease which has ended fatally since our last annual meeting.

The collection so laboriously and patiently brought together by Dr. Clement, and obtained chiefly from Concise and St. Aubin, — the objects from the last consist mainly of those belonging to the Age of Stone, — gives a nearly exhaustive series of objects relating to the modes of life of the ancient inhabitants of these two places. A portion of the collection comprising its more valuable objects, was exhibited in Paris during the great exposition of 1867, and attracted much attention from archæologists. Many of the objects have been described by Keller, Desor and Mortillet, in their respective published works, especially in the *Promenades Préhistoriques* of de Mortillet and the *Palafites*, and *Phalbauten* of Desor.

Without entering too much into details, the following sketch will give a general idea of some of the more important kinds of objects Dr. Clement's collection contains.

The *bones of animals* used as food, or hunted for their skins, exist in large numbers, in many cases more or less crushed and broken, either for the purpose of converting them into tools, or for adapting them to the process of cooking, as is everywhere observed in the refuse heaps of savage nations. The following nineteen species are represented, viz., the ox, hog, sheep, goat, dog, fox, cat, lynx, black bear, martin, weasel, badger, hedgehog, otter, squirrel, stag, fallow deer and the roe buck. The bones belong to animals in different stages of growth, from the foetal to the adult period, but none belong to the extinct species.

Tools of bone are very abundant and quite varied. Among these may be mentioned the different pointed kinds used as perforators, some rudely made of splinters without further labor than that of sharpening the more slender portion, and others carefully wrought from the metatarsal and metacarpal bones of the deer sawed lengthwise, and nicely finished throughout. Those made from the bones of the larger species were probably used as weapons. The ulna of the deer, and of smaller animals, was converted into an awl by sharpening its more slender part, the articular portion serving as a handle. The ulna of the stag and ox, by a similar process, was converted into a dagger. The metatarsal and metacarpal bones were also converted into chisel and gouge-shaped tools. With the exception of the implement made from the ulna of the ox, most of the kinds mentioned above were made by the American Indian, and are met with in the shell heaps and mounds of the United States. Besides the above are many objects designated as "pins" and "needles," also combs made of fragments of ribs, pointed and polished, which are supposed to have served in the dressing of flax, and a great variety of other objects, the use of which is more or less uncertain.

Not less interesting than the preceding are many specimens showing the marks of tools in splitting, sawing, cutting, etc. A portion of the skull of a deer has the marks of the stone axe, made in the attempt to dissever the bones of the face from the cranium, and many other portions of crania show the manner in which the antlers were cut off by hacking.

The *antlers* or horns of the different species of deer form a conspicuous, and the tools made from them an important, part of the collection. Some of the horns of the stag are of gigantic size, much larger than any now commonly found in Europe. This difference is, however, probably due to the fact that in earlier periods these animals from being less hunted were allowed to reach to greater age, and their antlers consequently a more complete growth. It is worthy of notice that in this collection a large part of all the antlers in which the base remains, were not such as came from animals killed in the chase, but as had been dropped at the period when they were annually shed, as appears from the peculiar surface of the bone on the line of separation due to absorption. The horns of the deer seem to have been as great a mine of material to the lake dwellers for the manufacture of useful articles, as flint to the ancient inhabitants of Denmark, stone to the North American Indians, or bone to the Esquimo and the natives of the northwest coast of America.

Among the objects or implements made from antler, the following are the more important, and can be merely mentioned, viz., sections of various lengths which appear to be intended for further working, handles for awls and different kinds of chisels of stone or bone, sockets for setting stone axes in wooden handles, rings, pendants, boxes, drinking cups, handles for axes, hammers, harpoon, arrow and spear points, casse têtes, picks, etc. These different kinds of implements are represented in every variety and all together comprise several hundred objects.

Many instruments and ornaments are made of the *teeth of animals*. As with the North American Indians, the teeth of the bear were, if one may judge from the numbers of them, especially prized. They are drilled at the end of the root for suspension in the same manner as are other specimens in our collections, from the mounds of Tennessee, of Kentucky, and other parts of the valley of the Mississippi. The teeth of the dog fox and some of the Viverine animals were also used, as they were by the Indians for similar purposes.

The incisors of the hog and ox set in handles of antler were used as cutting tools, and show marks of having been sharpened for the purpose. As with the North American Indians, the lower jaw of the beaver was converted into a cutting instrument by removing the processes of bone, grinding off the edges of the molar teeth to adapt the body of the bone for a handle, the incisor being reserved for use, which was also sharpened as occasion required. Similar instruments

have been found in the shell heaps of New England, and Prof. Baird has found them in those on the St. Croix in New Brunswick.

The tusk of the wild boar, as with the Hawaiian Islanders, was used for pendants and other personal ornaments, and also for various boring tools, scrapers, and other implements of uncertain use — but often very nicely wrought and polished.

Of *stone implements* there are many kinds, and many duplicates of each kind. The axes are of the different forms found in the lakes, many of them still in the antler sockets, in which they were originally set, and a few are besides in the original handles of wood, which in all cases are very much shrunk from drying after their long immersion in water. Handles of the original form and size, when fresh from their burial places, have been copied, some in plaster and others in wood, and axes set in them in the original way. Double edged and hammer axes drilled for handles are represented by very fine specimens. Of the ordinary axes not drilled there are more than two hundred specimens of every variety of form and finish.

The method of drilling is well illustrated in a variety of instances, some showing the action of a solid, and others of a hollow rotary drill. Some of the last were not finished, but broken perhaps in the act of making, and the place from which the core was detached is quite obvious. A few of the cores are preserved. We thus have, as Mr. Rau has pointed out, processes of drilling parallel to those used by the Indians of this continent. A few specimens show unfinished attempts at sawing stone, and traces of a similar process are visible even in pieces of jade which have been worked into chisels and other tools.

Hammer stones, which, as the indented surfaces show, have been by long use worked into a spherical form, spindle weights, some unfinished, the central opening not yet drilled through, arrow points, spear heads, flakes of flint used as knives, scrapers, saws, borers, weights for nets, etc., are all represented in large numbers. The collection of grinding stones for forming and sharpening tools is very complete and instructive.

There are several objects made of jade, such as small axes, chisels, beads and pendants, which have attracted much attention among archæologists, and are described in the works already referred to. There are too many modifications of the different kinds of cutting instruments above mentioned to be described in detail, and we have called attention only to some of the more important of them.

Of articles of *pottery*, there are thirty vases of various patterns and sizes, four of which, ruder and more primitive in their workmanship than the others, are assigned without doubt to the *Age of Stone*, and are highly prized. Two of these are figured by Desor in his *Phalbauten*, and by Mortillet in his *Promenades Préhistoriques*. Besides the above are numerous fragments of vases, showing forms of lips and handles and styles of ornament, also spindle weights, rings or torches for supporting vessels on the fire, etc.

There are various objects made from wood, some of which, as the handles of axes and adzes, the heads of clubs, bows, shafts of arrows, net floats and other objects, are sufficiently well preserved to indicate their forms, but all very much shrunken in drying. Some of the clubs, and a paddle, have been restored from well preserved lacustrine oak.

Among various objects from the lake dwellings at Robenhausen, are several kinds of carbonized fruits, including apples, beach nuts, etc., about fifteen different kinds of seeds, including wheat and barley, and a good collection of cords and woven fabrics. Among these last we have the ordinary fabrics, composed of a single warp and wool, one of identical texture with that of which we have casts on the surface of some of the earthen vessels from the mounds of Tennessee.

The collection of objects in bronze and iron though small, is of considerable value, but as it has no direct bearing on the study of American archæology, it will not be necessary at this time to describe them.

The above sketch is of necessity very incomplete, as it is impossible in the space which can be given to it in a report like the present, to enter sufficiently into details to give an adequate view of the wealth of material which it contains.

The Museum may be considered fortunate in its acquisitions pertaining to European Archæology. With that of Clement from the Swiss lakes, that given by the Museum of Comparative Zoology from the same source, and to be mentioned further on, that of de Mortillet from France, Switzerland and the Italian lakes, with the admirable and very complete collections by Wilmot J. Rose from Denmark, Schleswig and Holstein, and with that of Claus from the same countries, we now possess good means for the study of European Archæology, and for the comparison of the implements and objects belonging to the early age of man in Europe, with the analogous ones of the new

world. In view of the fact that there exists a large demand for archæological objects in the principal museums of Europe, that the Danish government prohibits the exportation of such, that the ancient dwelling places on the Swiss and Italian lakes, as also the caves and rock shelters of France, have been largely explored, and many of them exhausted, it is hardly probable that opportunities for obtaining collections, such as those above referred to, will be again offered to us.

While we have improved our opportunities for gathering archæological materials from the old world, we have at the same time given attention to those of the new.

II. EXPLORATIONS IN TENNESSEE.

During the year the Rev. E. O. Dunning has continued his explorations in East Tennessee, under the direction of the Museum. They have been chiefly confined to Brakebill Mound, at the junction of the Holston and French Broad River, and to Lick Creek Mound, situated at the union of Lick Creek and the Nollechucky River. Many objects were obtained from other sources than these mounds, viz., such as were ploughed up in the cultivated fields, but which for the most part had the same characteristics as those met with in the mounds. The collections obtained by Mr. Dunning in this and previous years, make very valuable additions to the resources of the Museum. The following letter from Mr. Dunning, gives some of the more important particulars of his labours, and especially of the examination of Lick Creek Mound.

DEAR SIR:

My explorations for the past year have been in Knox, Cocke and Green Counties, Tenn. Much time was spent in further examination of the Brakebill Mound, from which you have received so many specimens. I collected many antiquities in Cocke County, where the cave skeleton was discovered, of persons who had found them, and through my own labors. In Green and Hamlin I obtained many objects. The mound on Lick Creek afforded the greatest number, and the most valuable. It was originally cone-shaped and truncated, about thirty feet high and seventy-five feet in its longest diameter. Having been ploughed over for seventy years it had lost its primitive proportions. It is situated in "Lick Creek Bottom," fifty rods from the creek, near its junction with Nollechucky River, and from the first mentioned stream to a bend in the other a channel or sluice has been cut, the earth taken from it having been used in the composition of the mound.

I began my operations on the east side, nearest the "dry creek," as it is called, by digging a trench ten feet wide to the centre. The surface earth was composed of sand loam, with such an intermixture of clay as would come from the removal of the top alluvium of the surrounding plain with portions of the substratum. Charcoal and ashes were observed for six or eight feet, when we came to a layer of sand a foot in thickness and several yards square. Over this was one of burnt clay, upon which lay a mass of charcoal, ashes and animal bones. The last had been broken before they were cast upon the pile. Underneath the stratum of sand was a layer of decayed wood and bark covering a human skeleton. This rested on its side and was doubled up, the leg bones pressing upon the ribs—the usual position of such remains in all the mounds I have examined. Implements were deposited with the skeleton, commonly at the head, and if a vessel of earthen ware, at the back of a skull. In one instance four vessels were deposited together. In an excavation fifteen feet in length eight skeletons were observed, too much decayed to be removed in considerable portions, each one under a layer of wood and bark,—the common mode of sepulture throughout the structure. Near the centre were the remains of what appeared to have been a vault of cedar wood, indicated by rotted posts set in an upright position, describing a rectangular figure. Slabs or logs of the same material as the posts had evidently connected the frame of a rude coffin or vault. Two of these tombs were observed, one above the other, a few feet apart; within each space lay a skeleton, with some of the most valuable objects sent to you, including the copper implement.

I did not penetrate to the bottom of the mound because I judged, after some examination, that it had been raised eight or ten feet before any burials had taken place. The earth at a certain depth seemed to be homogeneous, not packed or in layers, as in other parts of the structure. Other excavations were made from the circumference to the centre, revealing the remains of fifty skeletons lying like those before exhumed. I was able to remove but few skulls sufficiently well preserved to answer the purposes of comparison.

A small mound near the large one was examined, which rose only six feet above this plain. It has been reduced in dimensions by the plough and the harrow. It furnished, however, some of the most valuable articles of my collection. The inevitable wood and bark layer appeared over all the skeletons, but instead of blue clay from Lick Creek, or sand loam from "Chucky," a pavement a few yards square, of round or "river rocks," supported each frame. Whenever we struck one of these stone layers a rich deposit was sure to be our reward. I judge from the number and style of the works of art, such as carved pipes, beads and ornamental pins in shell, disks of calcedony, polished axes of green stone, serpentine and quartz, lance heads wrought from variegated silix and arrow points of fine work-

manship, that the little mound in the shadow of the large one, which might have contained the common dead of the mound building tribe, was devoted to the remains of the chiefs and more distinguished members.

Truly yours,

E. O. DUNNING.

New Haven, December 25, 1871.

The objects obtained by Mr. Dunning may be classified under the different heads which follow.

Stone Implements. The axes are mostly of one type, characterized by having the groove deeply cut, and this surrounded by a prominent raised ridge. The "chisels" or "fleshing tools" are of two types, one a compressed cone, giving a nearly transverse oval section, and the other with nearly flat sides and square edges. Both of these closely resemble analogous forms from the Swiss Lakes. With but few exceptions all are finely polished over their whole surface. The pestles are either cylindrical, like some of those met with in the Eastern States, or short and conical, forming a muller, the upper part being sufficiently contracted to serve as a handle. The discoidal stones vary from one to three and a half inches in diameter, some of them admirably wrought from quartz. The biconcave discs are much larger, the largest five and a quarter inches in diameter, and very skilfully worked. Plates of mica, between forty and fifty, round and oval, are represented by two sizes, a few of them perforated, as if to be attached to a dress, or worn about the person. Of spear and arrow heads there is a great variety, but all of the common patterns. The most nicely wrought are quite small, triangular, with a thin, straight base, and no notches. One of the most remarkable implements is a cylindrical tube of soapstone, twenty-two inches long and two inches in diameter, tapering somewhat at either end. This had been drilled from opposite ends, but the two perforations not coinciding, they passed by each other, the bores communicating laterally. A fragment of another tubular instrument of the same material appears to have had a long cylindrical body, and ends in an enlarged and trumpet shaped mouth, and possibly was used as a horn. A large, flat, circular stone weighing ten pounds, of a natural form, with an artificial conical pit on either side, is of uncertain use. This, with some smaller ones having similar pits, have been supposed to be used for breaking nuts.

There are in addition to the above some pipes made of stone, one a calumet, of large size, plainly worked, with a square bowl, the portion for the insertion of the stem also square and of the same size as the bowl. A second pipe with the bowl and stem made of one piece, the stem short, flattened and curved, projecting beyond the bowl, which last is surrounded by a broad, thin rim. This pipe was ploughed up near an ancient mound in Cocke County, and is the only one of stone found, which in its style and finish approaches those of the mound builders, as described by Squier and Davis.

To the above should be added a flat, circular plate of stone, four and three quarter inches in diameter, which has engraved on one side near the edge three concentric circles, and the space surrounded by the inner circle, divided into four equal compartments, by two grooves intersecting each other at right angles. The circumference of the stone is divided into twelve nearly equal portions or scallops.

The whole number of stone implements collected by Mr. Dunning amounts to about three hundred and fifty.

Objects made of shell. These consist chiefly of *beads*, which are of several patterns and many varieties. Some are discoidal, others spherical, others hemispherical, with a concave surface on one side covered with nacre, and others more or less cylindrical. The most remarkable are beads of large size, made from the columella of a large marine species, probably *Fasciolaria*, the spiral groove on the side being generally preserved. They are of variable sizes, from one half to two inches in length, the largest of them weighing between two and three ounces, and have a hole drilled through them lengthwise. The shells of a species of *Oliva* are converted into beads by grinding off the point of the spine and rounding the opening, and a small *Marginella* is perforated for the same purpose by rubbing the spine obliquely on a grinding surface. Specimens similar to these last from Big Mound, near St. Louis, were presented to the Museum last year by Prof. Nathaniel Holmes.

The number of beads found in Lick Creek Mound alone is truly surprising, and bearing in mind the statements of Squier and Davis, that shell beads were equally abundant in the mounds explored by them, and were found "in some instances by hundreds and thousands," and that other explorers make similar statements, it would seem that the manufacture of, and traffic in, these objects must have been carried on on an immense scale. To this it should be added

that a large portion of them came from the Gulf of Mexico, and were distributed far and wide over the valley of the Mississippi. The amount of labour required for the manufacture of them cannot be easily estimated, as each bead appears to have been made separately. A natural supposition would be that much labour would be saved if they were made in long pieces and then cut into the required lengths. A few specimens with a groove cut around them, as if for the purpose of division, give some support to this view. A careful examination, however, even of the smallest beads, shows that this is impossible. All the beads are drilled from opposite sides, the two pits meeting in the middle, each hole being neatly countersunk, therefore requiring to be separately wrought. This applies to beads not exceeding two millimetres in diameter, as well as to those of the largest dimensions. The instruments which served the Indians for such delicate work, not only in the drilling but even the shaping of the smallest of these objects, are not known. That the smallest as well as the largest are really cut from shell is obvious from the microscopic structure of the material. The Indians do not in any case appear to have availed themselves of a natural form, except when the whole shell is used, as in the case of *Oliva* and *Marginella*.

Discs of shell from a half inch to an inch and a half in diameter, and the larger ones a half an inch in thickness, are cut from the shell of *Pyrula*, have a hole drilled through the centre, and are probably wampum. A large quantity of these was found near the dead body, in one of the cave burial places in Cocke County, as will be seen further on. Such disks are widely diffused through the valley of the Mississippi, as shown by Squier and Davis and others, and we have them also from the great Mound near St. Louis, though of much smaller size, for which we are indebted to Prof. Holmes.

Pin shaped implements. These curious objects appear to have been quite commonly buried with the dead, as we have thirty-six of them in Mr. Dunning's collections. They are all made from the columella of *Pyrula*, and vary from two to six inches in length. The largest of them has a hemispherical head an inch and a quarter, and a shaft nearly a half inch in diameter. They end in a somewhat blunt point; the smaller ones are of the same shape and proportions. The use of them is unknown. They resemble the so-called hair pins made of metal from the various prehistorical collections of Europe, though of much stouter proportions.

The most remarkable objects, and the ones least known, taken from the mounds are the *engraved shells*. Such as these are not mentioned in the memoir of Squier and Davis, but are referred to, though not described, by Dr. Jones in his account, in the American Naturalist, of the mounds of East Tennessee, examined by him. The following extract from one of Mr. Dunning's letters gives an account of the circumstances under which they were found. They were obtained chiefly from the Brakebill and Lick Creek Mounds. Those from the first Mr. Dunning states "were found at a depth of eight feet under layers of charcoal and burned clay several yards square, and were deposited under the head of a human skeleton, which was doubled up in the usual manner. Implements of stone and shell ornaments accompanied the remains. The smallest of the engraved shells had been placed under the skull of a young person, the other near a man of mature age, and with it a large polished axe of greenstone, some delicately shaped flint arrow points and a carved representation in shell of a human face. Those from Lick Creek Mound were found under nearly the same circumstances."

These engraved shells may be arranged according their forms in two groups, those of one pear-shaped, and of the other oval or nearly circular. They are also readily distinguished by the styles of work. The first are made from the most dilated portion of the *Pyrrula*, and vary from four and a half to eight and a half inches in length and from four to six in breadth.

They are mostly perforated with two holes, apparently for strings, but which in some are surrounded by circles representing eyes; between these is a raised ridge of shell in the place of a nose, and below this a third hole, which in some of the pieces is surrounded by a raised portion, which takes the place of a mouth. A few have different devices upon them made by parallel lines forming a series of angles. These objects it is probable were worn about the person as gorgets.

Six of these are carved, with some variations, to represent a human face; three are without any ornament whatever excepting a slight marking of the edge. They may be unfinished pieces.

The other series of engraved shells comprises a larger number, and though some of them are rudely marked, they are mostly neatly and carefully made and have complex figures cut upon them. A single piece is without ornament, and may have been unfinished. Like the preceding they were made from the shell of the *Pyrrula*, but are of a nearly

circular form, from two to four and a half inches in diameter. As appears from two holes in the edge of each they were no doubt intended to be suspended about the person. The engraving is in every instance on the concave side. Of twenty-three pieces fifteen bear essentially the same device. Two holes made for suspension, four long slits extending parallel to the edge in the four quadrants, two triangular and one elongated perforation in the central portion are cut or bored through each piece. In a single specimen the position of the openings, as compared with that of all the others, is reversed. The most conspicuous part of the engraving and which strikes the eye at once is a dot surrounded by two concentric circles, and outside of these a half circle with the ends prolonged to the left. To the right of the circles, which taken together represent an eye, and resemble those figures on some of the pyriform plates, previously described, are two diverging portions of shell left by the openings just mentioned, representing jaws, on the edges of which are markings intended for teeth. This central figure was obviously intended to represent the head of an animal. From this head descends a band which nearly encircles it, extending parallel to the edge of the plate, and is ornamented with a series of crossed lines and dots, varied somewhat in different specimens. This band ends in a point over the head, which in many is marked with lines *en chevron*, but in others with only straight lines. All the parts, viz., the head, the encircling band and its terminal portion, taken together, leave no doubt that this portion of the engraving was intended to represent a rattle snake.

The largest and most elaborately wrought plate differs wholly from the preceding; has only the two perforations for suspension, the whole surface being filled up with concentric circles, parallel, angular, crossed and curved lines, and with dots; but for the understanding of the arrangement of which, as in the preceding case, a drawing is necessary.

A third form of engraved plate has a line cut parallel to its edge, and the central space divided into four parts by two sets of parallel grooves crossing each other, and leaving a square space in the middle. The quadrants are divided into small squares; the spaces between the parallel grooves have each three or four rudely drawn lines cut in them, and the square in the middle has a curved line drawn from one of the angles to the other across the centre.

A fourth form has a dot surrounded by a circle in the centre, from which curved lines radiate rather irregularly toward the circumfer-

ence. The edge of the plate is cut into compartments, but these are obscured by the imperfect condition of the shell, resulting from decay.

The signification of these engravings is uncertain ; but the fact that the largest part of them, thirteen out of eighteen, bear the same device, viz., that of a rattlesnake, makes it probable that they served as family or tribal symbols, and are therefore of the nature of totems.

The collection of fragments of *pottery* is quite large, and represents a great variety of forms of vessels, lips, handles and kinds of ornamentation, some of them quite rude, but most of them of superior workmanship. There are eight entire vases, chiefly of the *akeek* patterns, the largest a foot in diameter. One somewhat smaller than this is ornamented on four sides with a figure of a human face in relief, which was made by the addition of clay to the surface after the vessel had been otherwise completed, as is often seen in the pottery from Mexico and Central America.

A large proportion of all the vessels as well as fragments are in one way or another marked with the impressions of twisted cords. Similar markings have been observed on pottery from very distant parts of the United States, and have been observed on the earthen vessels of the prehistoric period of the old world. We have specimens from Maine, Massachusetts, Missouri, Illinois, Ohio, Tennessee and Florida.

It is an interesting fact that while every trace of the cords and woven textures made by the mound builders has perished, we have impressions or casts of the first left with sufficient distinctness on their earthen vessels to determine the style of twisting and the number of strands, and of the second to ascertain, in some cases, at least, the manner in which the cords were interwoven. By means described further on, the exact structure of the impressing surface has been reproduced.

The explanation usually given of these markings is that the vessels have been moulded in a net, which was used to support the soft clay while the process of manufacture was going on. That vessels, especially the larger ones, were moulded in baskets, and these destroyed in the burning, there is an abundance of evidence, as set forth in Mr. Rau's interesting paper on the pottery making of the North American Indians in the Smithsonian Report for 1866. This is a point about which there is scarcely any liability to error. But there is a great difference between moulding a vase in a firm and steady structure like a basket, and a yielding, flexible one, like a net. None of the specimens

we have thus far received show that a net, if by net is understood a structure formed of meshes made by knotted cord, was used in moulding a vessel, for no impression of a knot is to be found anywhere. It would have been if any existed, as we have shown experimentally. The impressions are, in all cases, either of a *woven* texture or else of cords neither knotted or woven, but probably wound about some body, and in this form used as a stamp. By making casts of the surface of the cord marked vessels with gutta percha we have reproduced the original details of the impressing surface, which show very clearly the above differences. The textures are of two kinds, one with and the other without open meshes. The first are formed by a series of parallel cords or warps, intersected by a second series of parallel cords crossing the first at right angles, but including one of these in every twist of its strands. The laborious process was therefore required of passing the two strands of which the second cord is made above and below the first cord, and then twisting them before passing to the next. The texture with closed meshes is handsomely woven, and in one instance of threads not exceeding a thirtieth of an inch in diameter. Unfortunately none of the vessels bearing markings of a woven texture are entire, so that it is impossible to ascertain whether the impressions are distributed in a uniform manner over the whole surface. It seems incredible that even an Indian would be so prodigal of time and labor as to make the necessary quantity of well twisted cord or thread, and weave it into shape for the mere purpose of serving as a mould, which must be destroyed in the making of a single copy.

It must be remembered that the vessels are all made with bodies more or less bulging or spherical, and that in consequence, if formed in a mould, this must either be made in sections capable of being separated, or else it must be destroyed either by cutting or, as is more commonly supposed, by burning, before the copy could be removed. There appear to be no traces of sections, and the impressions show no signs of a mould adapted to removal.

Possibly the vessels thus ornamented were intended only for special purposes, as for religious ceremonies or the use of chiefs, and were not made in very large numbers, and so an unusual amount of labor might be accounted for.

The second form of cord marked pottery is more common, and is very easily understood. The cords were arranged for the most part parallel to each other, and not connected either by weaving or knot-

ting. We have reproduced such impressions by winding a cord around a stick, and pressing this against the surface of the clay, stamping only a limited surface at one time. In order to cover the whole surface in this way it would be a matter of necessity that adjoining impressions would interfere with each other more or less, which they actually do on the surface of the vessel, one set partially obliterating another. Such impressions must therefore be regarded as finishing touches after the vessel was formed rather than as casts of a mould in which they were supposed to be made. This view is sustained by the fact that they often extend on to the handles, which are never added until the body of the vase is completed, and also by the fact that some of the impressions are but faintly made, as if the clay had already become somewhat hardened before the cords were applied. In one case the impressions were such as would be made by a ball of loosely wound cord, rolled over the surface. We are unable to say whether such markings had more than an ornamental signification, but it is worthy of notice that they were so largely used in widely different parts of the country. We saw similar markings on a vase in the Museum at Berlin, marked as to its origin *unbekannt*, unknown, in which the cord marks were arranged in a few horizontal circles and vertical lines, obviously taking the place of the ornamental lines usually traced with a pointed instrument.

Sir John Lubbock mentions the existence of vases from ancient mounds in Scotland, ornamented with impressions from twisted thongs, and further states that in the stone age "the most elegant ornaments of their vases are impressions of the finger nail, or of a cord wound round the soft clay." Smith. Rep., 1862, p. 320. In view of these facts the question arises whether the impressions of the finer woven fabrics may not have been also merely ornamental markings added after the vase was completed, and not impressions of a mould in which they were formed.

Under the head of carving we may mention several specimens of *pipes*, one of which has a sculptured human figure grasping the bowl, and approaches in skilful execution most of those figured by Squier and Davis.

There are a few pieces of *worked bone*, consisting of pointed implements, which may have been used as awls. In one instance some twenty of these were found in a single mass, all cemented together by lime derived from the percolation of water. Several specimens of a gouge shaped instrument closely resemble implements from the Lake

dwellings of Switzerland, and made of the same bone, viz., a metatarsal or metacarpal bone of the deer, were found buried with the dead.

Of implements in metal there is a single tool, a chisel, made of native copper, seven inches and a half long, two and a half wide on the cutting edge and pounded into shape, and which was buried with the dead.

Two of the *burial caves*, which are not uncommon in Tennessee, and which Dr. Jones has described, were examined by Mr. Dunning. One of these is in Jasper County, and contained at least the remains of four individuals of different ages, one a child. The bones were very imperfect, were much broken previously to their exhumation, and in addition have been much gnawed by rodents. Portions of the tibia showed that this bone was considerably flattened. The remains were associated with bones of the deer, woodchuck, birds, shells and fragments of pottery. No cranium accompanied the bones.

A second cave is situated near the mouth of the Big Pidgeon River, not far from Newport, in Cocke County. As described by Mr. Dunning "it is about eighty feet above the water, and reached only by a steep, rocky path called the Devil's Gap. The tomb was found about two feet below the floor of the cave, covered with an artificial layer of clay about six inches in thickness, by which the joinings of the stone were completely closed. It was five feet long, two high and three and a half broad, and built of unhewn stones, fragments of the outcropping limestone ridge near by. The body was placed in a crouching position. Charcoal and ashes were present, indicating that fire had been kindled near the tomb. The only relics found buried with the skeleton were about five pounds of discs made from some large marine shell from an inch to an inch and a half in diameter, and perforated in the middle."

The skeleton found in this stone tomb, as appears from the imperfect ossification of the bones, was that of an individual not quite adult, having a height of nearly six feet, but with bones of rather slender make. The tibiae are somewhat flattened, and the fore arms are much lengthened, in proportion to the upper arm, the radius being 0.81 and the ulna 0.87 of the length of the humerus.

The cranium was not quite perfect, but sufficiently so to determine its principal proportions. The most marked feature, and this is very striking, is the extreme artificial flattening of the occiput, and the consequent increase of the diameter of the head from side to side, so that the breadth somewhat exceeded the length, a degree of distortion

not often met with even in the extreme cases among the Peruvians. In many of the North American Indian tribes a comparatively slight amount of distortion is often met with, but among a few it was carried to an extreme condition, as in the Natchez, as recorded by Adair and Bartram, and more recently by Morton; among the Choctaws and Waxsaws, according to Lawson, and among the Catawbias, according to Morton.

III. EXPLORATION IN FLORIDA.

During the last winter, February and March, 1871, the writer had an opportunity of re-examining some of the shell heaps on the St. Johns River, East Florida, mentioned in the First Annual Report, and of exploring others not previously visited. Valuable additions to our previous collections were made, so that now we have a nearly complete series of objects from these sources, representing more than forty different stations, and which may, for the present at least, be considered unique. The shell heaps on the above mentioned river differ from all others in being made of small convoluted fresh water shells, *Ampullarias* and *Paludinas*; the fresh water mussels, *Unios*, which almost exclusively form the shell heaps of other rivers, being here for the most part sparingly met with, and in some instances are almost wholly absent.

Among the shell heaps not previously visited, that of Silver Spring, on the western side of Lake George, is the most remarkable and probably the largest in the valley of the river, and is said to cover an area of twenty acres. It consists of two portions, one of which encircles the source or "boil" of Silver Creek, and extends along the right bank of the creek toward the shores of the lake; the second and larger occupies the right shore of the creek near its mouth, and also the adjoining shore of the lake. The height is variable; in some places not more than two or three feet, and in others more than twenty. The lake front of the mound is very abrupt, and bears unmistakable evidence of having been largely washed away by the waves driven in by the easterly winds, and of having had its materials distributed along the shore.

It seems incredible to one who searches the waters of the St. Johns and its lakes at the present time, that the two small species of shells above mentioned could have been obtained in such vast quantities as

are seen brought together in these mounds, unless at the times of their formation the shells existed more abundantly than now, or the collection of them extended through very long periods of time. When it is borne in mind that the shell heaps afford the only suitable surface for dwellings, being most commonly built up in swamps, or on lands liable to be annually overflowed by the rise of the river, they appear to be necessarily the result of the labours of a few living on a limited area at any one time. At the present it would be a very difficult matter to bring together in a single day enough of these shells for the daily meals of an ordinary family. That they formerly existed in larger numbers than now is by no means improbable. It is well known with regard to both animals and plants, that after flourishing for considerable periods in given areas, they at length yield in their struggle for existence against changed conditions. The oysters of which the gigantic shell heaps on the Damariscotta River, in Maine, are built, were, beyond doubt, obtained from the adjoining waters, but to-day they are well nigh extinct, and the same is, in a measure, true of some of the deposits on Cape Cod, as at Cotuit Port. Analogous changes have been observed by European archaeologists. The oyster banks near the mouth of the Baltic, from which many of the ancient shell heaps of Denmark were formed, have disappeared, partly through increasing freshness of the water, and partly through the ravages of the starfish. The last of them have disappeared from the Isef fiord during a century, so that none are found further south than the northern end of the Island of Seeland, and in large quantities only on the more northern shores of the Kattegat. The water chestnut, *Trapa natans*, once very abundant in some of the Swiss Lakes during the age of the Lake dwellers, has now become extinct in those regions. Smith. Rep., 1865, p. 365.

As the oysters of the ancient period were very much larger than those now found on the coast of Maine, it is also the case that the shells from the mounds of the St. Johns surpass in size, though to a less marked degree, those of the actual period.

The facts that the remains of other edible animals are comparatively scarce, and make an insignificant part of the whole kitchen refuse, and that all the objects made by man associated with them are of a very rude kind, go to show that the ancient inhabitants of the St. Johns were in a low state of savage life. Their pottery was for the most part of the rudest kind. The figures on the vessels being either rudely traced with a pointed instrument, impressed with

a stamp cut in squares, or with the end of a shell. Out of thousands of pieces which we have examined, not one has been seen bearing the marks of the skilfull workmanship, or having the elegance of ornament which those from the mounds of the valley of the Mississippi usually exhibit. We have sought in vain for anything approaching the style of the ornament seen in pieces figured by Schoolcraft, and described as coming from Florida, or which we have ourselves collected in the burial places at Cedar Keys, or in the coast or salt water shell heaps at Fernandina and St. Johns Bluff. Though the precise source of those described by Schoolcraft is not stated, it is quite obvious they came from a people much more advanced in the art of pottery than those who built the mounds on the St. Johns.

A re-examination of the mound at Horse Landing, on the right bank of the river above Pilatka, gave more satisfactory results than those before obtained. This mound has the appearance of greater age than any other. Formerly a piece of worked flint was taken from the sand beneath the deposit of shells, but, though the conditions for examination were very favorable, only a single article of man's work, a piece of drilled bone, was found in the shell heap itself. The presence of charcoal was also noticed. As this interesting mound is fast disappearing, and will at no very distant time be wholly destroyed, the following particulars will not be out of place. As now seen, it is a half oval structure, rising abruptly on all sides, the river front being perpendicular. The length is three hundred and seventy-five feet, the width one hundred and seventy-five, the height at the union of the western and middle third thirteen, and of the eastern with the same fifteen feet. At the eastern end it rises from a swamp, and to the west and south merges in a plain, covered with forest growths and saw palmetto. It has been largely destroyed by the action of the river, and as its destruction continually goes on from year to year, new sections are brought to view. It was originally built on a sand bank, which is seen underlying it, having a height of from three to five feet above the river in the middle and western portion, but as the mound was extended eastward it gradually encroached upon the swamp into which the shells descend. The lowest part of the shell deposit is cemented by lime into a solid mass, in which are enclosed the bones of edible animals and implements of shell and bone, in a manner analogous to what is seen in the deposits of the ancient caves of France. Several fire places indicated by char-

coal, ashes and calcined shells were examined, in the neighborhood of which the bones of edible animals were collected. These facts all point unmistakably to man as the builder of this mound. It differs, however, from many of the other mounds, in the entire absence of pottery, excepting a few pieces from the part beneath the surface in the vegetable loam, and which were, without doubt, of recent origin.

With regard to the age of different mounds there is little to be added to what was stated in a former report, except that the minimum age of some of them is found to be somewhat greater than supposed. There is to be seen at Silver Spring a grove of live oaks, a few survivors of a race of giants once common in the forests near the river, and to which my attention was called by my friend G. A. Peabody, Esq. Six of these at five feet from the ground measured as follows: one thirteen feet, three fifteen, one nineteen, and one between twenty-six and twenty-seven feet in circumference. This last has been partially destroyed by fire, an act of vandalism committed for the purpose of collecting the moss hanging from its branches. The circumference was estimated from one half of the trunk, all that now remains, but agrees closely with measurements made several years before by Mr. Peabody, when the trunk was still whole. These trees are not on the highest part of the mound, but on the slope farthest from the water. Excavations made beneath the largest of them showed that the tree was of more recent origin than the mound itself. If at the beginning of the second century of the life of the live oak there are twelve rings at least to the inch, then the above mentioned tree, having a semidiameter of fifty inches, would have an age of not less than six hundred years, and was near the beginning of the second century of its existence at the landing of Columbus. On the same basis of calculation, the lestage of the mounds near Blue Spring, and at Old Town, would be about four hundred years. Though these estimates are to be regarded only as approximations to the truth, they, without doubt, carry back the origin of the mounds beyond the reach of history or tradition, and certainly one or two centuries before the discovery of America. Although they cannot be more recent than the trees growing upon them, they may have been, and probably were, finished long before the life of the trees above mentioned began.

IV. PURCHASE.

The Museum has obtained by purchase a series of casts, made under the direction of Dr. E. H. Davis, of the more important objects obtained by Squier and Davis, and described in their joint memoir in the Smithsonian Contributions, Vol. I. The originals of most of these are now the property of the celebrated Blackmore Museum at Salisbury, England.

In addition to the above are casts of idols, ornaments, charms, terra cottas of various kinds, etc., from Central America, Mexico and Peru.

The whole number of objects in this collection is one hundred and four.

A small collection of specimens of kapa cloth, wreaths of feathers, paddles and ornaments from the Hawaiian Islands, have also been purchased.

V. GIFTS.

The Museum of Comparative Zoology has, with great liberality, transferred to this Museum all its ethnological and archæological collections, consisting of more than three hundred and fifty specimens. Among them is a very valuable series from the Swiss Lakes, obtained by Prof. Agassiz while in Europe, in 1859, and were among the very first discovered after attention had been called to the Swiss lake-dwellings. It contains several implements not found either in the Mortillet or Clement collections. The different objects may be enumerated as follows: thirty pieces of antler more or less worked, eighty-seven pointed tools, such as awls, daggers, etc., fifty-one antler sockets, sixteen of which still retain their stone axes, various tools made of the teeth of the hog and ox set in antler, and a series of the bones of the different animals found on the sides of the dwellings. Besides the above are several well preserved vases, and other objects made of burned clay, axes of stone, grinding or polishing stones, and various specimens of carbonized seeds, bread, etc., from Robenhausen.

The specimens from other countries are as follows:

A perforated stone used to give weight to the Bushman's root digger, a Bushman fire stick, knife, and bow with eight arrows, three spears, an Ovampo snuff-box, drinking cup and beer ladle, and Ovampo clubs, one armed with an iron point, and an ornament for the waist. *From S. Africa.*

Four stone axes and one cranium, probably negro. *From Brazil.*

Eight ancient vases, one large and remarkably fine met  te, elaborately sculptured in the form of an animal, and four stone chisels. *From Central America.*

Three stone mortars, two pestles, three sinkers, three spoons made of bone, one stone tube or trumpet, four chisels, a necklace, a sculptured pipe and two water tight baskets for cooking food with the aid of heated stones, all from San Mateo. *From California.*

A club. *From the Fiji Islands.*

A spear head and fish hook. *From Kingsmill Islands.*

A stone adze with an elaborately wrought handle. *From the Hawaiian Islands.*

There are twenty-four human crania of various nationalities among them, four of Flathead Indians. The collection is a very valuable one.

The Museum is indebted to the generosity of Dr. Charles C. Abbott of Trenton, New Jersey, for a very valuable gift of more than eight hundred specimens of implements of stone obtained from the immediate neighborhood of Trenton, by Mr. Morgan, and partly, also, by Dr. Abbott. It consists of flakes and other fragments of stones used in the manufacture of implements, of axes, pestles, boring tools, scrapers, spear heads, arrow heads, and a few fragments of pottery. The collection of arrow heads is unusually rich, and comprising some fourteen or fifteen types. Besides these there is a large collection of broken arrow heads, found near together on what was evidently an arrow maker's working place, and as Dr. Abbott suggests, were undoubtedly broken during the process of manufacture, showing a considerable per centage of loss from breakage.

There are also several implements which, as Dr. Abbott states, very closely resemble the celts of the drift period of Europe, especially those found at St. Acheul, two or three of which, except for their material, could hardly be distinguished from them.

The term scraper is applied to some of the implements just referred to, because of the close resemblance to such as bear the same name from the Danish collections belonging to the Museum. They are characterized by having a circular or semicircular flattened head, with a short projection which might serve as a handle, or for the purpose of attaching one. They differ from the Danish implements chiefly in their much smaller size.¹

¹ The reader is referred to two articles in the "American Naturalist" for March and April, 1872, on the *Stone Age in New Jersey*, by Charles C. Abbott, M.D., for a very complete and instructive account of the Indian stone implements of that State.

The Museum has also received other gifts from the following sources :

WILLIAM S. VAUX, Esq. Two stone implements from New Jersey.

ELIAS SMITH. Two spherical stones ploughed up near the supposed site of an Indian village in Lexington, Mass.

E. M. JOHNSON. A stone pestle and twenty-one arrow heads of stone from Oregon.

EDWARD S. WOOD, M. D. Photograph of an Indian vase from Illinois.

S. B. SHARPLES. Three stone mauls used by the Indians in working copper. From an ancient copper mine near Kewenaw Point, Lake Superior.

MRS. L. AGASSIZ. Wreaths made of feathers, worn by the Mundrucu Indians of the Madeira River, Brazil.

MRS. ASA GRAY. An arrow head taken from a wild goose in Alaska, by Prof. J.T. Rothrock, and given by Prof. Rothrock to Mrs. Gray.

A. T. COMFORT, ASST. SURGEON U. S. ARMY. Pieces of worked flint from the neighborhood of Fort Gully, Dakotah Territory.

DR. SAMUEL A. GREEN. A collection of the bones of deer and other animals from the shell heaps of Hog Island, Frenchman's Bay, Mt. Desert, Maine. A collection of stone chips from Groton, Mass. Eight specimens of common pottery from the Island of Malta, and one from Fayal.

SAMUEL H. RUSSELL. Two stone implements, source unknown, a part of the Charles Hammond Collection noticed in the Fourth Annual Report.

G. A. PEABODY. Two spear points and three stone implements found by him on the shores of Lake Monroe, E. Florida, where they were thrown up after a severe storm.

PROF. L. AGASSIZ. A sara-battana or blow tube from Teffé on the Amazon, made and used by the Passé Indians. Three bows and nine arrows from the same source, all presented by a chief to Prof. Agassiz. Also two head dresses of feathers, a small club made by the Tocantins Indians, and a robe from Bolivia made of the liber of the "shirt tree," presented to Prof. Agassiz by Senhor Davin, Chef de Police at Para.

P. D. WINSHIP. A photograph of a copper coin stated to have been dug up near Peoria, Illinois, at the depth of one hundred and twenty-five feet.

REV. B. F. DECOSTA. A collection of unfinished stone implements and fragments of pottery from the shell heaps at Wellfleet, where they were obtained by the donor.

DR. H. J. BIGELOW. A wooden mortar hooped with iron, and a pestle, the last armed with stone at the end, and used by the Indians in Nantucket after the settlement of the island.

PROF. JAMES L. CABELL. A collection of beads made of shell, from a mound on the Marlborough estate, Stafford Co., Virginia.

MUSEUM OF COMPARATIVE ZOOLOGY. Two sinkers, a pestle, two gouges and a large axe, all of stone, from Old Town, near Bangor, Maine.

J. WYMAN. Arrow heads and chips of stone from an Indian camping place near the borders of Charles River, in the Cambridge City Cemetery. A collection of implements of stone and shell, also fragments of pottery from the shell heaps of the St. Johns River, E. Florida.

ADDITIONS OF BOOKS.

From the Hon. Robert C. Winthrop.

Antiquarisk Tidsskrift, Udgivet af Det Kongelige Nordiske Oldskrift-Selskab. 4 vols. 8vo. 1843-1863.

Aarboger for Nordisk Oldkyndighed og Histoire, Udgivne af Det Kongelige Nordiske Oldskrift-Selskab. 5 vols. 8vo. 1866-1870.

Also No. I. of the above for 1871.

Memoires de la Societ  des Antiquaires du Nord. 1 vol. 8vo. 1832.

Antiquit s de L'Orient, Monuments Runographiques, Interpr t s. Par C. C. Rafn. Copenhague, 1856. 1 vol. 8vo.

Vestiges d'Asserbo et de S borg, Decouverts Par Sa Majest  Fr d ric VII, Roi de Danemark. 1 vol. 8vo. Copenhague, 1855.

Souvenirs de Danemark. Le Congr s Anthropologique de Copenhague, en 1869. Conference faite a la Societ  d'Utilit  Publique de Neuchatel Par E. Desor. 8vo. Bienne, 1870.

Observations on a Collection of Calchiliutls from Mexico and Central America. By E. G. Squier. Pamphlet. 8vo. New York, 1869.

Materiux pour l'Histoire Primitive et Philosophique de l'Homme. Par Gabriel de Mortillet. No. 1. Paris, 1868.

Quelques Remarques sur la G ographie et les Monuments du Perou. Par E. G. Squier. Pamphlet. 8vo. Paris, 1868.

Catalogue of Alaskan Antiquities and Curiosities. Collected in the Territory of Alaska, by Edward G. Fast, Esq. Pamphlet. 8vo.

Sur Divers Armes, Outils et Traces de l'Homme Americaine. Par M. J. Marcou. Pamphlet. 8vo. 1866.

Sur la Construction des Salles dites des Geants. Par M. le Roi Frederic VII de Danemark. Pamphlet. 8vo. Copenhague, 1857.

Report addressed by the Royal Secretary of Northern Antiquaries to its British and American Members. 8vo. Copenhagen, 1836.

The Northmen in Iceland. Extracts from the Memoirs of the Royal Society of Antiquaries of the North. 8vo. Copenhagen, 1859.

Congr s Archeologie International. Anvers, 1866. Circular.

Congr s d'Archeologie et a Anthropologie Prehistoriques, Session de Bologne. Discours d'Ouverture par M. le Comte Gozzadini, President du Congr s Bologne, 1871.

No. I., Indian Bulletin for 1867, containing a brief account of the North American Indians, and the Interpretation of many Indian names. New York, 1867. Pamphlet.

Congres International d'Anthropologie et d'Archeologie Prehistoriques. 5^{me} Session. Circular. 4to. Bologna. 1870.

Memoirs de la Societe Royale des Antiquaries du Nord. Nouvelle Serie. 8vo. Copenhagen, 1869.

Atlas de l'Archeologie du Nord, Representant des Echantillons de l'Age de Bronze et de l'Age de Fer Polie. Par la Societe Royale des Antiquaires du Nord. Copenhagen, 1857. Folio.

From the Minnesota Historical Society.

Collections of the Society. Vol. III, Part II. St. Paul, 1870.

From Dr. Samuel A. Green.

Ancient Earthworks of the Cuyahoga Valley, Ohio. By Col. Chas. Whittlesey. 8vo. Pamphlet. Cleveland, 1871.

No. I., Indian Bulletin for 1867, containing a brief Account of the North American Indians, and the Interpretation of many Indian names. By Rev. N. W. Jones. New York, 1867.

From E. M. Johnson.

A Dictionary of Chinook Jargon.

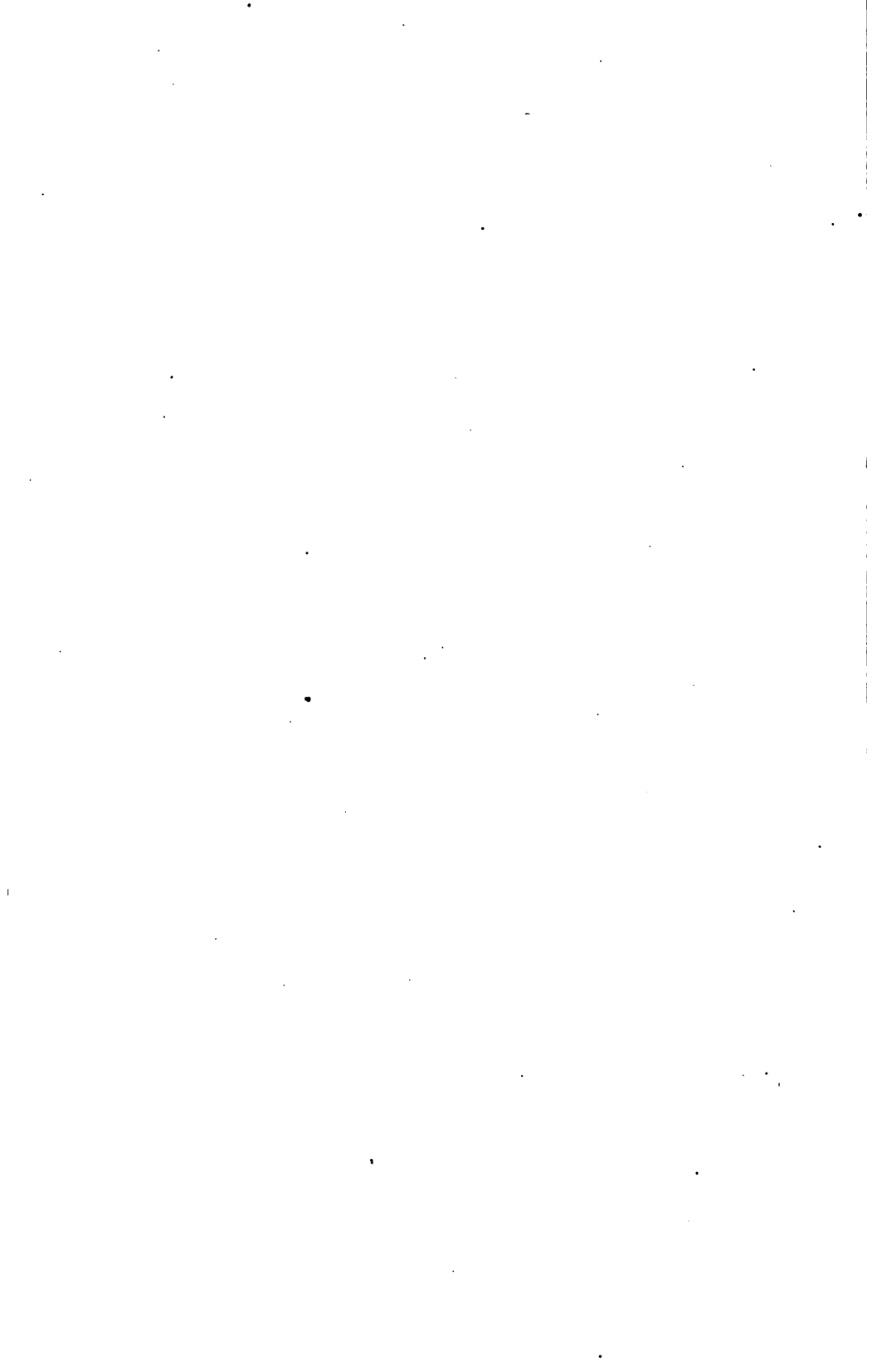
From the Baron de Buren of St. Aubin, Lake Neuchatel.

Photograph of the late Dr. Clement.

Purchased.

Precis de Palæontologie Humain. Par E. T. Hamy. 8vo. Paris, 1870.

J. WYMAN, *Curator.*



REPORT OF THE TREASURER.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology in connection with Harvard University:

The Treasurer respectfully presents his Fifth Annual Report in the following abstracts of account, and the cash account hereto annexed:—

The Collection Fund is charged with

| | |
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| 9 Massachusetts Five per cent. Coast Defence Specie Notes, due July 1, 1883, each \$5,000, number 46 to 54, registered, the gift of George Peabody, Esq. | \$45,000.00 |
| Income from above Notes in currency | 2,498.91 |
| Income from 9 Massachusetts Five per cent. Specie Notes of Professor Fund | 2,498.90 |
| Income from Treasurer's Investments | 274.29 |
| Balance of Worcester & Nashua Railroad Co.'s Note, \$487.92, Feb. 17, 1870, Interest Six per cent. | 156.80 |
| Worcester Note, Jan. 4, 1871, on demand, Interest Seven per cent. | 5,013.48 |
| | <u>\$55,442.38</u> |

And Collection Fund is credited with

| | |
|--|--------------------|
| 9 Massachusetts Five per cent. Specie Notes, as above, | \$45,000.00 |
| Balance of Worcester Note for \$3,264.66, July 4, 1871 | 1,193.26 |
| Worcester and Nashua Railroad Co.'s Note, Jan. 2, 1872, Interest Seven per cent. | 2,462.98 |
| Payments to Hon. R. C. Winthrop in London, £850 sterling, to be paid for Collections | 4,600.09 |
| Payments for Collections | 866.80 |
| Payments for Explorations | 1,100.00 |
| Payments for Show Case and Trays | 204.67 |
| Payments for Incidentals | 424.68 |
| Balance of Cash charged to new account | 90.00 |
| | <u>\$55,442.38</u> |

The Professor Fund consists of

| | |
|---|--------------------|
| 9 Massachusetts Five per cent. Specie Notes, as above, each \$5,000, registered number 55 to 63, the gift of George Peabody, Esq., of which the Income is appropriated to Collection Fund, as the Professorship is not filled | <u>\$45,000.00</u> |
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The Building Fund is charged with

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|---|--------------------|
| 12 Massachusetts Five per ct. Specie Notes, as above described, numbered 64 to 75, the gift of George Peabody, Esq. | \$80,000.00 |
| Income from above Notes in currency | 3,331.88 |
| 3 United States Five-twenty Bonds of July 1, 1867, 2 of \$1,000, 1 of \$50 | 2,060.00 |
| 9 Worcester Water Bonds, due June 1, 1877, at Six per cent. | 4,500.00 |
| 3 Worcester Sewer Bonds, due June 15, 1877, at Six per cent. | 2,100.00 |
| Worcester Note, Jan. 6, 1870, on demand, Interest Seven per cent. | 2,144.06 |
| Worcester Note, Jan. 4, 1871, on demand, Interest Seven per cent. | 515.87 |
| 6 Worcester and Nashua Railroad Co.'s Five-ten Seven per cent. Bonds of Dec. 31, 1870. | 6,000.00 |
| Income from Investments of Treasurer | 1,192.58 |
| Cash in hands of Treasurer by last Report | .83 |
| | <u>\$81,835.21</u> |

And Building Fund is credited with

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|---|--------------------|
| 12 Massachusetts Five per cent. Specie Bonds, as above | 60,000.00 |
| 3 United States Five-twenty Bonds of July 1, 1867, as above | 2,060.00 |
| 9 Worcester Water Bonds, due June 1, 1877, Interest Six per cent. | 4,500.00 |
| 3 Worcester Sewer Bonds, due June 15, 1877, Interest Six per cent. | 2,100.00 |
| 6 Worcester and Nashua Railroad Co. Five-ten Seven per cent. Bonds of Dec. 31, 1870, at Seven per cent. | \$6,000.00 |
| Worcester Note, July 4, 1871, on demand, at Seven per cent. | 2,168.08 |
| Worcester Note, July 4, 1871, on demand, at Seven per cent. | 2,762.28 |
| Worcester and Nashua Railroad Co.'s Note, Jan. 2, 1872, on demand, at Seven per cent. | 2,106.74 |
| Worcester and Nashua Railroad Co.'s Note, Jan. 6, 1872, on demand, at Six per cent. | 158.11 |
| | <u>\$81,835.21</u> |

Investments of the

| | |
|---|---------------------|
| Collection Fund, at par, amounts to | \$48,746.24 |
| Professors Fund, at par | 45,000.00 |
| Building Fund, at par | 81,836.21 |
| | <u>\$175,581.45</u> |

STEPHEN SALISBURY, *Treasurer.*

Boston, Jan. 11, 1872.

Dr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archaeology*
1871. *For Collection Fund.*

| | | | |
|-------------------|---|------------|------------|
| Feb. 27. | To received balance of Worcester and Nashua Railroad Co's Note of Feb. 17, 1870. | \$158.80 | |
| Feb. 27. | To received Interest on above | 5.20 | |
| Feb. 27. | To received in part Worcester Note of Jan. 4, 1871 | 1,282.28 | |
| | | | \$1,444.28 |
| Mar. 30. | To received in part Worcester Note of Jan. 4, 1871 | | 450.00 |
| Apr. 20. | To received in part Worcester Note of Jan. 4, 1871 | | 150.00 |
| July 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes, Gold | \$1,125.00 | |
| July 1. | To received on sale of above Gold, at 13 per cent. | 146.25 | |
| July 1. | To received Six Months' Interest on Professor Fund, Massachusetts Five per cent. Notes, Gold. | 1,125.00 | |
| July 1. | To received on sale of above Gold | 146.25 | |
| | | | 2,542.50 |
| July 4. | To received balance of Worcester Note, Jan. 4, 1871 | \$3,131.22 | |
| July 4. | To received Interest on above | 133.44 | |
| | | | 3,264.66 |
| Sept. 6. | To received in part Worcester Note, July 4, 1871 | | 90.98 |
| Sept. 15. | To received in part Worcester Note, July 4, 1871 | | 1,240.00 |
| Nov. 4. | To received in part Worcester Note, July 4, 1871 | | 390.00 |
| Nov. 13. | To received in part Worcester Note, July 4, 1871 | | 83.82 |
| Dec. 4. | To received balance Worcester Note, \$2,542.50, July 4, '71 | \$827.70 | |
| Dec. 4. | To received Interest on above | 45.65 | |
| Dec. 4. | To received in part Worcester Note, \$3,264.66, July 4, 1871 | 1,272.10 | |
| | | | 2,145.45 |
| Dec. 19. | To received in part Worcester Note, \$3,264.66, July 4, 1871 | | 500.00 |
| Dec. 30. 1872. | To received in part Worcester Note, \$3,264.66, July 4, 1871 | | 299.30 |
| Jan. 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes, Gold | \$1,125.00 | |
| Jan. 1. | To received on sale of above Gold, at 9½ per cent. | 102.66 | |
| Jan. 1. | To received Six Months' Interest on Professor Fund, Massachusetts Five per cent. Notes, Gold | 1,125.00 | |
| | To received on sale of above Gold, at 9½ per cent. | 102.65 | |
| | | | 2,455.31 |
| Jan. 4. | To received Interest on balance Worcester Note, July 4, 1871 | | 90.00 |

1871.

For Building Fund.

| | | | |
|----------|---|------------|-------------|
| Jan. 12. | To balance of Account | | .83 |
| June 15. | To received Six Months' Interest on Worcester Water Bonds to 1st inst. | \$135.00 | |
| June 15. | To received Six Months' Interest on Worcester Sewer Bonds, | 63.00 | |
| | | | \$198.00 |
| July 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes, in Gold | \$1,500.00 | |
| July 1. | To received on sale of above Gold, at 13 per ct. | 195.00 | |
| July 1. | To received Six Months' Interest on United States Five-twenty Bonds for \$2,050, Gold | 61.50 | |
| July 1. | To received on sale of above Gold, at 13 per ct. | 8.00 | |
| | | | 1,764.50 |
| July 4. | To received Amount of Worcester Note, \$2,144.05, Jan. 6, 1870, Interest Seven per cent., \$74.31 | | 2,218.36 |
| July 4. | To received Amount of Worcester Note, \$515.87, Jan. 4, 1871, Interest Seven per cent., \$18.06 | | 533.92 |
| July 5. | To received Six Months Coupons on Worcester and Nashua Railroad Co. Seven per ct. Bonds to 1st inst. | | 210.00 |
| Dec. 4. | To received Six Months' Interest on Worcester Water Bonds, to 1st inst. | | 135.00 |
| Dec. 19. | To received Six Months' Interest on Worcester Sewer Bonds, to 15th inst. | | 63.00 |
| | | | |
| 1872. | | | |
| Jan. 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes, Gold | 1,500.00 | |
| Jan. 1. | To received on sale of above Gold, at 9½ per ct. | 136.88 | |
| Jan. 1. | To received Six Months' Coupons on United States Five-twenty Bonds, for \$2,050, Gold | 61.50 | |
| Jan. 1. | To received on sale of above Gold, at 9½ per ct. | 5.61 | |
| | | | \$1,708.99 |
| Jan. 2. | To received Six Months Coupons on Worcester and Nashua Railroad Co.'s Seven per cent. Bonds | | 210.00 |
| Jan. 4. | To received Six Months' Interest on Worcester Note for \$2,163.08 at Six per cent. (Seven per cent after) | | 65.04 |
| Jan. 4. | To received Six Months' Interest on Worcester Note for \$2,752.23, at Six per cent. (Seven per cent after) | | 82.57 |
| | | | \$22,241.49 |

etc., in connection with Harvard University, in Annual Cash Account, Jan. 11, 1872. Cr.

1871.

For Collection Fund.

| | | | |
|-----------|---|----------|-----------------|
| Jan. 18. | By paid Wm. H. Dall for services in obtaining Alaska Collection | \$50.00 | |
| Jan. 18. | By paid Prof. Wyman for three bills of freight paid | 53.09 | |
| Jan. 18. | By paid same for two bills of printing paid | 88.86 | |
| | | | \$191.95 |
| Feb. 7. | By paid rent of safe deposit | | 30.00 |
| Feb. 24. | By paid Robert C. Winthrop for Bill Exchange, London, £225 sterling, to pay for Collections | | 1,222.31 |
| Mar. 18. | By paid Rev. E. O. Dunning on account of Explorations in Tennessee | | 150.00 |
| Mar. 27. | By paid E. H. Davis for Casts from Blackmore Museum | | 300.00 |
| Apr. 19. | By paid Rev. E. O. Dunning balance of Appropriation for Tennessee | | 150.00 |
| July 4. | By paid for Worcester Note on demand, Interest Six per cent. | | 2,542.50 |
| July 4. | By paid for Worcester Note, on demand, Interest Six per cent. | | 3,264.66 |
| July 20. | By paid Chas. F. Hartt for Explorations in Brazil | | 500.00 |
| Aug. 26. | By paid Robert C. Winthrop for freight Bills Clement Collection paid | | 90.98 |
| Sept. 14. | By paid Robert C. Winthrop for Bill Exchange London, £225 sterling, to pay for Collections | | 1,240.00 |
| Oct. 21. | By paid Rev. E. O. Dunning Appropriation for Exploration in Tennessee | | 300.00 |
| Nov. 18. | By paid Prof. Wyman two bills of Catalogues, \$13.50; Bill of Express \$13.75 | \$27.25 | |
| Nov. 18. | By paid Prof. Wyman for three bills for Boxes and Trays | 41.57 | |
| Nov. 18. | By paid Prof. Wyman for F. A. Lyman Bill Hawaiian Objects | 15.00 | |
| | | | 88.82 |
| Dec. 1. | By paid Robert C. Winthrop for Bill Exchange London, £400 sterling, to pay for Collections | | 2,187.78 |
| Dec. 28. | By paid Prof. Wyman for Bill for Show Case paid | \$163.00 | |
| Dec. 28. | By paid Prof. Wyman for Hamy Paleontologie Humaine | 1.80 | |
| Dec. 28. | By paid Prof. Wyman for two bills of printing Report \$125; Catalogue \$9.50 | 134.50 | |
| | | | 299.30 |
| 1872. | | | |
| Jan. 2. | By paid for Worcester and Nashua Railroad Co.'s Note, on demand, Interest Seven per cent. | | 2,462.98 |
| Jan. 2. | By Cash balance to new account | | 90.00 |

1871.

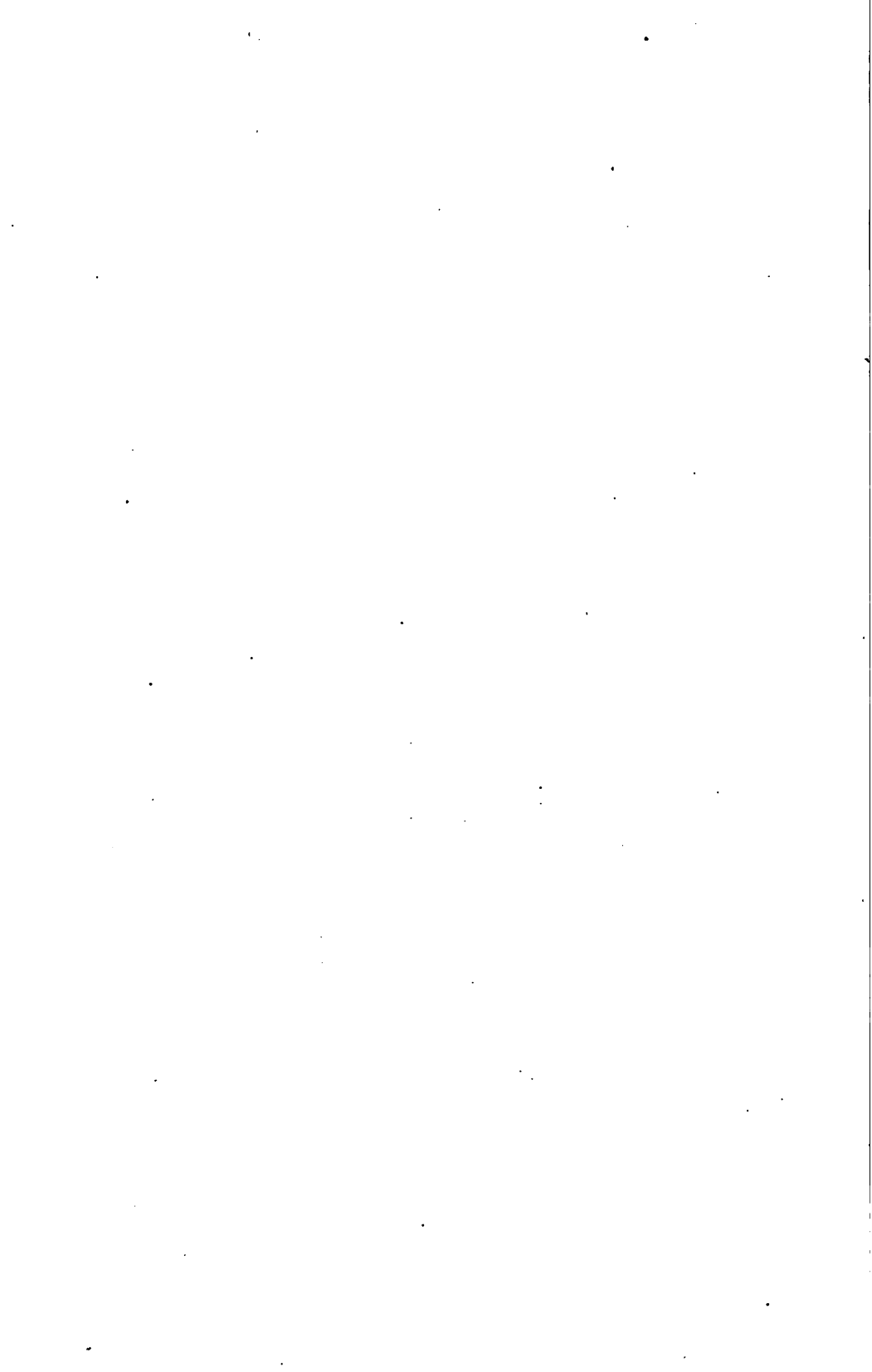
For Building Fund.

| | | |
|---------|--|--------------------|
| July 4. | By paid for Worcester Note, on demand, at Six per ct. | \$2,168.08 |
| July 4. | By paid for Worcester Note, on demand, at Six per ct. | 2,752.28 |
| 1872. | | |
| Jan. 2. | By paid for Worcester and Nashua Railroad Co.'s Note on demand, at Seven per cent. | 2,106.74 |
| Jan. 6. | By paid for Worcester and Nashua Railroad Co.'s Note, on demand, at Six per cent. | 158.11 |
| | | \$22,241.49 |

Boston, January 11, 1872.

I have examined the above account of Hon. Stephen Salisbury, Treasurer, and find it correctly cast, with proper vouchers for the same. I have also examined and counted the Bonds and Notes held as securities, and find them as above stated.

HENRY WHEATLAND, Auditor.



SIXTH ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, MAY 15, 1873.

CAMBRIDGE.

1873.

PRINTED AT
THE SALEM PRESS,
F. W. PUTNAM & CO.,
Proprietors.

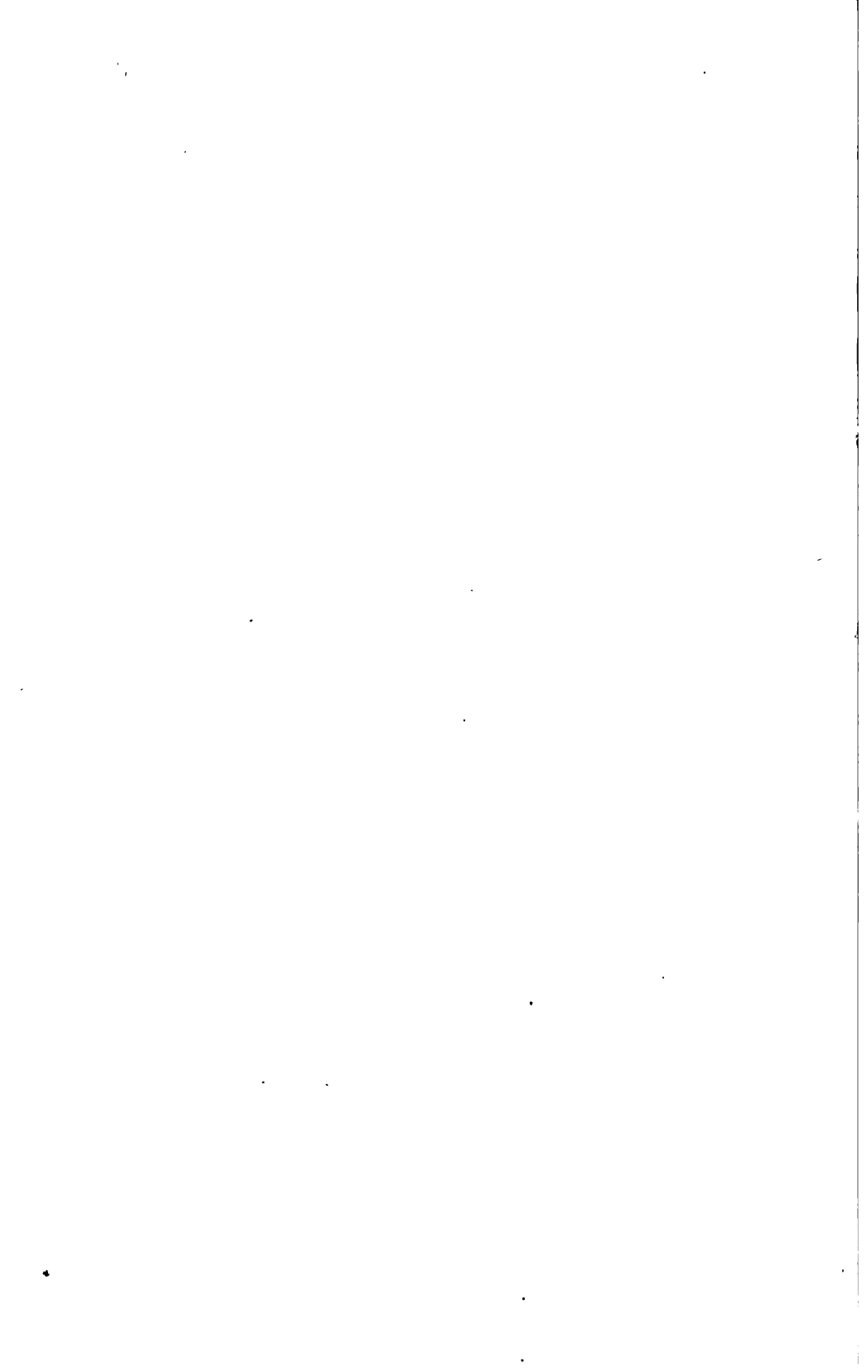
SIXTH ANNUAL REPORT.

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

THE Trustees of the Peabody Museum of American Archaeology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Sixth Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

ROBERT C. WINTHROP.
CHARLES FRANCIS ADAMS.
STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
HENRY WHEATLAND.
GEO. PEABODY RUSSELL.

CAMBRIDGE, MAY 15, 1873.



REPORT OF THE CURATOR.

To the Trustees of the Peabody Museum of American Archæology and Ethnology :—

THE Curator respectfully submits the following Report on the condition of the collections in his charge :—

The addition of a new story to Boylston Hall, since the last annual meeting, has enabled the Museum to obtain a room of sufficient size to allow of the exhibition in cases of the more important objects of the collection. These, as stated in the last annual report, have been kept heretofore in storage. The various objects from different parts of the world have been arranged in the following groups :—

I. Implements of stone and bone from North America, pieces of pottery showing various styles of ornamentation, and personal ornaments made of bone, shell, stone and copper, all at present or formerly used among the Indians of North America.

II. The very valuable collection made in Alaska by Capt. Edward G. Fast in 1866 and 1867, consisting of a great variety of tools, ornaments, weapons, household implements, dresses, carvings in wood, bone, etc., and also various other objects from the northwest coast of America. This collection is so complete that it was thought advisable to keep all the objects belonging to it in one series.

III. Objects from Mexico, consisting chiefly of the interesting collection of *terra cottas* presented by the Hon. Caleb Cushing, and casts of various Mexican sculptures presented by the Smithsonian Institution.

IV. Objects from Central and South America, including the valuable *terra cottas* obtained in Central America by Dr. Berendt.

V. Stone implements from Denmark, chiefly selected from the Rose collection.

VI. Implements from the unpolished stone period in France, belonging to the gravels of the valley of the Somme, implements of the polished stone period; also a great variety of implements made of bone and of the horns of the deer and casts of such, ornamented with skilful engravings. These last are from the caves and rock shelters of Dordogne, and are chiefly from the Mortillet and Christy collections.

VII. Pottery, and implements of stone, bone and wood from the lake-dwellings of Switzerland. These are mostly from the two stations at Concise and St. Aubin on Lake Neuchatel, representing the ages of stone and bronze, and were nearly all collected by the late Dr. Clement. To these have been recently added the collection made by Prof. Agassiz and presented to this Museum by the Museum of Comparative Zoology.

VIII. Fragments of pottery and implements of stone from the lake dwellings of northern Italy.

IX. The Nicolucci collection of prehistoric stone implements from middle and southern Italy, presented by Col. Theodore Lyman, an account of which will be found farther on.

X. A collection of ancient Etruscan vases presented by Augusto Castellani of Rome.

XI. A collection of paddles and weapons from the Pacific Islands.

XII. African implements and dresses.

XIII. Human crania from different parts of the world, amounting in all to three hundred and thirty-four, comprising the valuable collection of Peruvian skulls presented by Hon. E. G. Squier, one hundred Italian skulls recently presented by Col. Lyman, and other collections more or less complete from the Hawaiian Islands and from the Mounds of Kentucky, Tennessee, Michigan and Florida, and which have been noticed in previous reports. To these will soon be added a part of the large and very valuable collection of ancient Peruvian skulls, obtained by the Hassler Expedition and presented by the Museum of Comparative Zoology.

XIV. A collection of bones of the aborigines from different

parts of the United States of a period anterior to the discovery of the country, and selections from these showing the effects of disease and accident.

XV. Spears, paddles and canoes from different parts of the world.

XVI. Bows and arrows from different parts of America and the Pacific Islands.

In the last Annual Report an account was given of a very valuable collection of ethnological objects presented by the Museum of Comparative Zoology at the instance of Prof. Agassiz, but which, for want of space to store them, had not been transferred to our rooms. This collection has since been received and entered upon our catalogues.

Agreeably to a vote passed at the last meeting of the Trustees a selection from the duplicates of prehistoric remains from Denmark and the Swiss Lakes was sent to the Smithsonian Institution, and an acknowledgment of the same has been received. Another series was sent to the Peabody Academy of Science, at Salem. Both the above were gifts from this Museum to these institutions.

A collection of American stone implements for Prof. Pigorini of Parma has been selected, and awaits an opportunity for forwarding.

NICOLUCCI COLLECTION.

The most important addition made to the Museum during the year is the archæological and craniological collection of Dr. Gius-tiniano Nicolucci, of the Island of Sora, Naples. The Museum is indebted for this very valuable gift to the liberality of Col. Theodore Lyman, to whom on other occasions we have been under considerable obligations for gifts and good offices. It was purchased by Col. Lyman while in Italy during the year, and came into the possession of the Museum early in the last autumn.

The crania, one hundred in number, are mostly from the Italian peninsula, and are classified by Nicolucci in the catalogue which accompanies the collection, as follows:—

I. Five skulls from an ancient tomb at Aquino (the ancient Aquinum) in the province of Terra di Lavoro, and belonging to the first century of the Christian era.

II. Three crania from Rome, belonging to the second century of the Christian era.

III. Six crania taken from a cemetery of the fifteenth century, in a church at Arpino (the ancient Arpinum) in the Terra di Lavoro.

IV. Twelve crania, taken from a cemetery which belonged to an old church at Aquino, the latter having been destroyed in the middle of the sixteenth century.

V. Thirty modern skulls from various places in southern Italy, viz:—Naples, Capua, Benevento, Sora, Arpino, Aquila, Campobasso, Isernia and Bojano.

VI. Thirty-one skulls from central Italy, viz:—from Rome, Tivoli, Albano, Velletri, Frosinone, Banio and Veroli.

VII. Five skulls from Modena and Udine in Northern Italy.

VIII. Four Albanian skulls, coming from the descendants of an Albanian colony established several centuries since at Ururi in the province of Melise, southern Italy.

IX. Four Roumanian skulls.

The whole makes a very important addition to our anthropological series, and is valuable for the comparison of the normal variations in the form and features of the Italian cranium, and also for the study of certain anomalies of structure.

The collection of stone implements, comprising in all seven hundred and ninety pieces, consists chiefly of objects coming from the southern half of the Italian peninsula, and were found in several of the provinces, extending from those of Abruzzo to those of Calabria and Otranto.

Among the most fruitful in ancient remains are the provinces of Abruzzo, especially Abruzzo Ultra I, through which passes the valley of the Vibrata. This valley, beginning in the Apennines, extends between hills of moderate height eastward to the Adriatic, and in it the Vibrata has cut a deep bed into a diluvial deposit made of the débris of the mountains from which it rises. As late as 1867 the only stone implements from this region known to archaeologists were two flint arrowheads discovered by Dr. Guidobaldi. These discoveries were at once followed up by Dr. C. Rosa, and now stone implements from this valley, of several kinds, have been collected by thousands. Working places for the making of them have also been found, and are indicated by large

quantities of chips and fragments similar to those which have been so often observed in analogous places in other parts of the world.

The Nicolucci collection contains about two hundred specimens from the valley of the Vibrata, consisting of chips, cores, knives or regularly formed sharp-edged flakes, scrapers and arrowpoints. These are mostly of flint, a few of the knives being made of obsidian or volcanic glass.

The arrowheads are all of a triangular form and provided with a tang. This last varies much in its size, in some being very diminutive and in others nearly as large as the effective part of the head. A few have in addition to the tang well-formed barbs on each side. Some fine specimens of flint knives of the usual type come from the province of Abruzzo Citeriore.

From the province of Rome there are forty-seven specimens, and of these nearly thirty are from the alluvial gravel beds of the Tiber at Ponte Molle, near the city of Rome. They consist of fragments of flint which bear the usual marks of human workmanship, and have been subjected to long continued mechanical action of water and sand, whereby their angles have become rounded and their surfaces smooth. They are presumed to belong to the earliest stone age. Accompanying them is a fragment of the tooth of an elephant (*E. antiquus*) and a tooth of a rhinoceros (*R. megarhinus*), both extinct species, and both found in the same locality.

Besides the above there are from the same province, and of more recent date, chips and scrapers and a collection of many arrowpoints of flint. These last are referable to two types, similar to those found farther north, and having either simply a tang or a tang with barbs. There are casts of three others of a different shape and much longer, measuring three inches in length, with very regular, sharp, and well wrought edges and well pointed, a cast of a large knife and of a large spear point, seven inches long and of a handsome pattern.

The province of Terra di Lavoro is represented by two hundred and forty objects, consisting, as in the two other localities, of flakes, chips, scrapers and arrowheads. The large collection of chips and fragments which were found together indicates the site of an ancient working place.

The specimens from the Island of Elba, more than fifty in number, are in general of a ruder kind than those from the other regions. The most noticeable objects are the small and roughly chipped arrowheads, some of them not exceeding a half inch in length. There are several others of the ordinary size and usual form. A few cores and scrapers accompany them, the latter extremely rude.

From the island of Capri, which has yielded largely in stone implements, are twenty-three pieces, chiefly knives, resembling those from other prehistoric sites in northern Italy, Switzerland and France. A small arrowhead conforms to the more common type of the regions just mentioned. One of the most valuable objects from this island is a small axe-shaped implement of jade, well cut and polished.

From Telesa in the province of Benevento is a remarkably well formed arrowhead, long, handsomely pointed and having a tang at the base, the cast of another, and the cast of a remarkably well made spear point, nine inches long, in shape having the same elegant pattern as the arrowpoints, but with the tang notched, for the purpose of securing it to the shaft. Arrowpoints from Salerno show less skill in the making, but have the same general form.

The provinces of Otranto and Calabria are well represented, the former by the same kinds and variety of objects and of the same workmanship as the provinces already noticed. Two fine axes of chloromelanite, admirably wrought and polished, deserve especial mention, and there are a few fragments of knives made of obsidian. To these may be added a small collection of fossil sharks' teeth, which appear to have been used for pointing spears and arrows. These same fossils are used at the present day by the inhabitants of this province as a protection against the *mal occhio* or evil eye, for which purpose one specimen in the collection is silver mounted.

The province of Calabria has thus far, according to Nicolucci, yielded only a few flint implements, but many well wrought and polished axes made of sienite and other granitic rocks. Of these we have over thirty specimens, from fifteen different localities. As regards their form and finish they differ but little from those found in northern Italy and the Swiss Lakes. They are mostly in the form of a flattened cone, the broad end ground to an edge,

though this is sharp in a comparatively few. In the larger number it is more or less blunted, as if the instrument had been used for fraying and pounding rather than cutting. The only object in the collection from this province and not an axe is a discoidal stone, well polished, its sides concave and rough in the middle, as if it had been used as a hammer.

From this general statement of the kinds of objects and their distribution, it will be seen that the peninsula of Italy, one of the last regions to be explored for remains of the stone age, has yielded these very largely. They antedate all historical records, and until within a few years the existence of such does not appear to have been generally known by archæologists. It is true that some of them, as the celts and arrowheads, were familiar to the common people; not, however, as works of man, but as objects supposed to have fallen from heaven, and as such were highly prized as charms and preserved as heirlooms. In the collections of the British Museum a stone arrowpoint set in gold forms the central ornament of an ancient Etruscan gold necklace. Only a few years since the eminent German historian, Mommsen, in his history of Rome, while discussing the origin of the early inhabitants of Italy, states that "nothing has as yet come to light which would justify us in concluding that the existence of man in Italy is of older date than the knowledge of agriculture and the smelting of metals; and if within the boundaries of Italy the human race was at one time in the condition we are in the habit of distinguishing as savage, every trace, at all events, of such a state, has disappeared." The enumeration of objects which has just been made shows by itself that a savage people making use of stone implements were distributed over its different portions in considerable numbers, and it is quite probable that future explorations will give evidence of a much more numerous population than we now know of. If we may judge from the style of their works thus far known, these ancient inhabitants were not essentially different from those living near the Great Lakes. The ancient inhabitants of Italy were not, however, lake-dwellers, but occupied the valleys of the streams and the grottos of the hillsides, and consequently the same conditions did not exist for the preservation of the more perishable objects produced by them, and which would help us to form an idea of the progress they had

made. The fact, however, that they made stone tools of various kinds is of itself satisfactory evidence that they wrought wood and other materials by their aid.

Besides the collection from Italy which has just been described, there is in the Nicolucci collection a small series from France, viz:— from the Valley of the Somme, Poitou, Basin of Paris, and Dordogne, which are similar to those in the Mortillet collection, from Denmark, Belgium, England and Ireland. Those from England are especially welcome, since they come from the drift and are the works of the earliest inhabitants of England thus far brought to light, and of which we had previously but few representatives. They are of the same age as those from the valley of the Somme in France and resemble the implements from this last mentioned region. They come chiefly from the valley drained by the Ouse and its tributaries, which region has become almost classical from the large number of implements it has yielded, and the number of localities in which objects have been found.

EXPLORATIONS.

A collection made by Mr. Henry Gillman from a mound on the Detroit River, Michigan, explored by him, has been purchased. This consists of human remains and various objects buried with the dead. The latter are of the common kinds, such as stone chisels, one of much beauty made of diorite and highly polished, a spear point, arrow points, stone pendants, a stone boring tool, beads and ornaments made of shell and copper, an implement made of antler, a miniature vase of the size of a common thimble, and two large and perfect vases of the oval pattern and ornamented over the whole surface with cord marks. One of the skulls, that of a fully adult person, is worthy of notice for its diminutive size, and for a remarkable extension of the lines for the attachment of the temporal muscle towards the top of the head. The average capacity of the Indian cranium as given in the tables of Morton and Meigs is eighty-four cubic inches, and the minimum observed by them sixty-nine cubic inches. That from the Detroit River Mound measures only fifty-six cubic inches, or less than sixty-seven per cent of that of the average Indian. In ordinary skulls the ridges of the temporal muscles on the two

sides of the head are separated by a space of from three to four inches, seldom less than two, while in the Detroit mound skull this space measures only three-quarters of an inch; and in this respect presents about the same conditions as the skull of chimpanzee. As the two other crania from the same mound offered no such peculiarities, the skull which has just been described must be considered simply as an extreme case of individual variation from the ordinary form. There are no signs of artificial deformity.

The single tibia accompanying this collection is somewhat flattened.

EXPLORATIONS ON THE ST. CLAIR RIVER, MICHIGAN.

Mr. Gillman, under an appropriation made by the Trustees, has explored a series of mounds at the head of St. Clair River, and the collections made by him have been received and were accompanied with the following report:—

The mounds situated at the head of the St. Clair River extend from south of Fort Gratiot for one and one-half miles northward, along the west shore of the river and of Lake Huron. It is altogether probable that they reach much farther, both northward and southward; but I have traced, examined, and fully identified them for the distance mentioned. Similar works have been found on the opposite side of the river, in Canada. Isolated mounds in the interior also exist, an interesting example of which is seen on the west shore of the Black River (a tributary of the St. Clair) at a point about one and three-quarters miles southwest of Gratiot; the mound referred to having been exposed, some years ago, by the grading of a road through it, which, as usual, resulted in the loss of a large amount of valuable relics.

With few exceptions, all these mounds have a general resemblance, and bear the appearance of terrace-like embankments from ten to twenty and twenty-five feet in height; they are much longer than wide, and run nearly parallel to the general direction of the river and lake shore, which here does not vary much from north and south. They are mostly of the drift formation, subsequently modified or added to by man for the various objects for which they were occupied, whether for the purposes of interment, habitation, or the manufacture of the rude implements connected with the daily life of that period; and, from the topographical features and the geographical position, they must have formed favorite places of retreat in war time.

Mound No. 1 is composed chiefly of sand and gravel, is about

two hundred feet long by fifty feet wide, and is fifteen feet above the level of the river. It has rather abruptly-curving sides, and is built on a slope of the ridge, of drift formation, on which the west end of the village of Gratiot stands.

A large excavation made about fifty feet from the south end of the mound disclosed the remains of four human bodies, at a depth of four feet from the surface. In an area of about ten feet square the four crania, with a portion of the accompanying bones, were taken out, but were in so decayed and tender a condition that, with the exception of a skull and a few of the long bones and vertebræ, they mostly fell to pieces. The bodies evidently were buried in a sitting or crouched posture. This was very apparent in one case where the femora were found bent upon and above the tibiæ, the vertebræ, etc., resting upon these, while the skull lay on top, face downward, as though it had leaned forward originally, and had finally fallen over into that position. This cranium is that marked Skull No. 1, Mound No. 1; and the vertebræ and other bones thereto belonging may be found correspondingly marked. With these remains were associated fragments of pottery, the bones of fishes and birds, flint chips, and some stone implements of the rudest character. These last were mostly water-worn boulders, apparently used as hammers, and almost invariably shattered; and net sinkers, flattish, irregularly elliptical stones, notched on the edges or partially grooved toward the centre. It is interesting to notice that the tibiæ present the peculiar compression which I have found so marked a characteristic, and in such extreme degree, in the tibiæ from the mounds on the Detroit River and the River Rouge, Michigan, establishing the fact that these, too, were platycnemic men.

After excavating to the depth of six feet the coarse gravel of the drift was encountered; but no further objects of interest being met with, the opening was extended in other directions to the westward, so as to open a lateral trench through the mound. This revealed several fireplaces, solid beds of black ashes from one foot to eighteen inches thick, with fragments of pottery and bone, flint chips, sinkers and broken hammers interspersed. The fireplaces were invariably at or near the surface of the mound, showing it to have been occupied for habitation subsequently to being used for burial purposes. Openings made at two points, about fifty feet from the north end of the mound, and also at a third point, half-way between these and the first excavation, added no facts of special interest. Two excavations were then made at twenty-five feet from the south end of the mound, showing fireplaces with the beds of black ashes two feet thick, and intermingled relics similar to those of the fireplaces already mentioned. Some of the fragments of pottery taken out here were uncommonly thick and coarse. Beneath were small pieces of the bones

of man, but nothing further worthy of mention. The encroachment of the town on this mound, and on those to the west of it, prevented a more satisfactory examination.

The oldest residents (some born and brought up here) knew nothing of the character of the mound, though they remember that, many years ago, it was covered with a large forest growth.

Mound No. 2, which lies two hundred feet northeast of Mound No. 1, is over five hundred feet in length by from one hundred to one hundred and fifty feet wide; and of the general height of twelve feet above the level of the St. Clair River. It is bounded on the north by a small stream known as McNeil's Creek, which also runs southwardly all along its eastern slope, as well as a part of the south end of the mound. The ordinary observer will scarcely fail to notice that this mound is something more than the work of nature. Its sides have a graceful, gradual slope, with the exception of the side fronting the river, which is abrupt and terrace-like, even where not washed by the creek. Between the creek and the River St. Clair is some low land with ponds, where are a few outlying mounds, small and of slight elevation. About two hundred feet of the south end of Mound No. 2 is clear of trees, except on the sides, and is covered with a smooth green turf. Excavations were made in a number of places, showing that this entire end of the mound was covered with a solid crust of black ashes from eighteen inches to two feet thick. So hard and solid was this crust that layers of it in large pieces several inches square and thick were taken up unbroken. Fragments of pottery showing a great variety of patterns, bones of animals, birds and fishes (some of the larger bones evidently smashed), flint flakes and chips, with stone implements, consisting principally of arrowheads, hammers and sinkers, were found intermixed with the ashes. The abundance of the sinkers and particularly of the broken hammers is a remarkable feature. Though such rude utensils, a selection from them is preserved, so as to give an idea of their character. I have not found elsewhere a similar condition of things, and believe that this end of the mound furnishes a nearer approach to the "refuse heaps" of the Atlantic coast than anything I have seen elsewhere on the shores of the Great Lakes. The absence of the shell deposit, however, makes a marked difference. I cannot find that those ancient inhabitants of this region had much recourse to shell-fish as an article of diet. The great abundance of fishes, and the ease with which they were captured, together with the multitude of land game, left them under no necessity to use the inferior fresh-water mussels for food.

From the large quantity of pottery fragments and broken hammers, together with the thick bed of ashes covering so wide an area of this mound, I incline to think that this must have been a point where the manufacture of their pottery was carried on to an

unusual extent. The broken hammers may be accounted for by their having been fractured in pounding the grains used as food, and in cracking the bones of animals for the extraction of the marrow, indications of which are not wanting. The pottery found in both these mounds exhibits an unusual variety of patterns; though not a single utensil was taken out entire.

From want of time the investigation of the northern part of the mound, which is elevated at its centre from two to three feet above the portion covered with the ash-bed, was confined to three points. No additional information was obtained, however, further than establishing for it a like origin with the other mounds.

All the northern portion of the mound and also the sides of the southern portion are covered with a large second growth of trees. These consist chiefly of White Pine (*Pinus strobus* L.), Scarlet Oak (*Quercus coccinea* Wang.), White Oak (*Q. alba* L.), and Basswood (*Tilia Americana* L.). The trunks of some of these trees have a diameter of from eighteen inches to two and one-half feet. A few decayed stumps of the original forest still remain. These average four feet in diameter.

Mound No. 3. After the exploration of four other mounds, three lying northward, the fourth northwestward of Mound No. 2, which contributed no additional facts of particular value, other than their identity of origin with the rest of the group, attention was next directed to mound No. 3, which proved to be the most interesting of the entire series. This mound is situated three-quarters of a mile northeastward of mound No. 1. It is about five hundred feet in length, and in breadth varies from seventy to ninety feet; while its height above the surface of Lake Huron is twelve feet, or not more than five feet above the general level of the surrounding land. In general direction it corresponds to the other mounds, and there is little in its appearance to suggest its character or call the attention of any other than a practised eye.

A large excavation was made at its widest part, and about its centre. Within two feet of the surface the bones belonging to a single body were unearthed, but in so tender a condition from age that they mostly crumbled to pieces. A few bones of birds and fishes were found with them. Some of the decayed roots of an oak tree stump, ten feet to the westward (and which will be further alluded to), had grown over and around these bones. The excavation was deepened, widened and carried farther to the eastward, opening a trench to the depth of six feet, but only small fragments of human bones resulted. The trench was then opened to the westward, toward the stump of the oak. When at the depth of five feet we came to a skull (No. 1, mound 3). Some of the bones first taken out overlay this, and decayed roots of the oak, as thick as a man's arm, stretched above it. The other bones belonging to the body appear dwarfish. It was buried with the

head to the east, and the legs seemed to have been drawn up, and not stretched out at full length. On removing these remains, we found, immediately underneath, a third body, placed so closely that the skull of the upper rested on that of the lower. At the head was a large quantity of the bones of birds and fishes, in a compact mass, as though once held in some wrapping or vessel which had decayed. These were pressed against the skulls, so that in some cases they adhered to them, and are, no doubt, the remains of the food placed with the dead. Such of the bones as could be removed are preserved, but a great portion crumbled to pieces. This body was buried with the head to the eastward. The roots of the oak tree had penetrated the bones in many cases, the long bones presenting some interesting examples of this, as the roots in their natural growth had first filled, then burst, the bones, so that in several instances the parts of the bone surrounded the now decayed root, imbedded in it. Such pieces as held together are forwarded. This tree, which evidently belonged to the second growth of timber, was, I think, a scarlet oak (*Quercus coccinea* Wang.), as the majority of the wood covering the southern half of the mound is of this species, together with the white pine. The decayed stump was two feet in diameter at the base, and at one foot above the ground divided into three trunks or main branches, each nine inches in diameter. These had been cut down, apparently, many years ago; and as between the first and two subsequent burials must have occurred, in all probability, some lapse of time, and the oak must have sprung up, reached its growth, been cut down, and its stump finally have decayed long afterwards, some slight idea may be had as to the age of the first burial.

The trench was now opened to the oak stump, when, from directly beneath it, skull No. 3 was taken out with the accompanying bones. Upon this skull lay a plate of mica, five by four inches, of a quadrilateral shape, the corners worn off. A pebble of water-worn coral rested upon the mica, as if to keep it in place. About the neck of the deceased a necklace of remarkable construction had apparently been hung. This uncommon ornament was composed of the teeth of the moose, finely perforated at the roots, alternating with wrought beads of copper of different lengths, and the perforated bones of birds stained a fine green color, the stain, in the few pieces preserved, being wonderfully fresh. Small portions of the cord to which they had been attached are still partially preserved and remain in the apertures of the copper beads. I suppose that the teeth alternated with the copper beads and the stained bones. One copper bead, which adheres by its oxidation to the perforated part of a tooth, sustains this conclusion. A rude stone axe, partially polished, lay beside these remains. All indicated that the dead had been peculiarly

honored in his burial, and that he had been, perhaps, a noted personage.

Immediately to the northward of this body another was taken out, skull No. 4, with the remaining bones. These were under the edge of the oak stump, and, as well as the remains No. 3, were surrounded with masses of roots. Both bodies lay nearly side by side, and at the same vertical plane, five feet below the surface. As in the other cases, the bones of birds and fishes were found with the remains, but in small quantity.

The excavation was next carried southward, through the centre of the mound, for a short distance; but no relics being met with other than a few fragments of broken hammers and flint chips, it was next opened in the opposite direction, northward, thus giving it the form of an irregular Latin cross. When a few feet to the northward of the remains last taken out (No. 4), we came upon skull No. 5, and following up the indications recovered such of the remaining bones as could be preserved. With this body a flint arrowhead and some other rude stone implements were found; also a number of small shells, the species of which I have not determined, but which appear to have been used for some special purpose, perhaps as ornaments, as they were ground smooth at the base. About twelve of these were recovered, but there must have been many more originally, as a large number of them crumbled to dust, and also some of them might easily have been overlooked. A short distance westward of the last relics, skull No. 6 was taken out. The accompanying bones, as in the cases of the others, were very tender, and it was with extreme difficulty that any of them were recovered. The tibiae exhibited the compression previously referred to in a marked degree. A large mass of fish bones lay in front of this body, which, like the previous remains (skull No. 5, etc.), was buried placed on its right side with the head towards the east, and the limbs drawn up closely to the chest. It is possible that they may have been buried in a sitting or crouched position, and have afterward fallen over; but I think they were buried as first mentioned. The absence of pottery with the interments in this mound is worthy of note, only two fragments being found in any part of the mound, and these apparently accidentally dropped.

Isolated excavations in different places throughout the extent of Mound No. 3, as also in a mound sixty feet to the west of it, contributed nothing specially entitled to record.

Mounds Nos. 4, 5, etc. Mound No. 4 is eight hundred feet northeast of Mound No. 3. It is three hundred feet long by from thirty to fifty feet wide, and is a low sandy ridge with a series of nine conical elevations running along its length, and rising two or three feet above its general level, they having a diameter of from twenty-five to thirty feet.

Mound No. 5 is fifty feet to the westward of Mound No. 4, and is of a conical shape, forty feet in diameter, and nearly twelve feet above the level of Lake Huron, being between three and four feet higher than No. 4. Two other mounds of a smaller size but similar shape lie to the north of it.

From Nos. 4 and 5 were obtained a few stone implements, fragments of bones and pottery, with flint chips and the usual boulder-hammers mostly fractured. Our limited time prevented as thorough an investigation of these mounds as their appearance certainly warrants. I believe the removal of those conical elevations in Mound No. 4 would be rewarded with interesting discoveries.

Other mounds to the northward and westward, belonging to the series, were also examined to the extent of confirming their claims to a like origin with those more thoroughly explored. A mound south of Mound No. 1 (the first investigated) contributed a few stone implements, which are forwarded. The large implement appears to me to resemble a spade, but may have been designed for some other use than that apparently indicated.

In conclusion I would say that the facts observed fully prove this extensive group of mounds a rich field for more exhaustive research. And here I repeat the interesting fact that all the tibiae unearthed invariably exhibited the compression or flattening characterizing platynemic men. Unfortunately the bones generally crumbling to pieces prevented satisfactory measurements. But sufficient evidence was obtained (in connection with my discoveries in other parts of Michigan) to establish the point that this race, from the Detroit River to the St. Clair and Lake Huron, was marked with platynemism to an extreme hitherto unobserved in any other part of this country, or perhaps any other country in the world. I cannot but believe, from what I have seen, that future investigation will extend the area in which this type of bone is predominant to the entire region of the Great Lakes, if not of the Great West; or, in other words, that at least our northern "mound-builders" will be found to have possessed this trait in the degree and to the extent denoted. I am unable to say whether this peculiarity prevails in our modern Indian or not.

With the exception of the rude stone hammers and the sinkers, the number of perfect stone implements seems to me unusually small throughout this entire series of mounds. The question arises: Had this people the habit of sometimes breaking the stone implements cast into the burial mounds? Or were broken ones selected for this purpose as being of little other use?

EXPLORATIONS IN BRAZIL.

Prof. C. F. Hartt, having organized a geological exploration in Brazil in 1871, kindly offered to aid the Museum in making archaeological collections, and for carrying out his plans an appropriation was made by the trustees. The results of this exploration have been received, and are valuable. The collection of articles of pottery is very extensive, and was mostly made on the island of Pacoval Marajo and at Taperinha on the Rio Tapajos. Though there are many broken pieces, these are chiefly of sufficiently large size to enable us to obtain a good idea of the forms of the articles used by the aborigines and of the style of ornaments. The last consist either of complicated figures traced on the vase when the clay was soft, of lines engraved after the clay was dry but before it was burned, or of figures painted in colors, which last in some cases are combined with the traced and engraved kinds. The handles exhibit a great variety of shapes, as ornamented knobs, grotesque imitations of animals and of the human figure or parts of it, all showing great fertility of resources in inventing and executing patterns.

The most valuable of the earthen vessels is one of the large "face-urns" which of late have attracted much attention among archaeologists. It is two feet and a half high, somewhat over four feet in circumference, and rudely represents the human body, the head and trunk forming nearly the whole of it. The features of the face are represented in relief, and the whole surface is elaborately, though not very skilfully, ornamented with complicated figures, those of the right and left sides being for the most part symmetrical. In some instances these vases have been found to contain human bones.

The collection of stone implements comprises in all sixty-two pieces, mostly obtained at Itaituba and Cafezal on the Tapajos, from the vicinity of Santarem and the Island of Marajo. The axes are quite characteristic, those of the different localities resembling each other, and are mostly flat, quadrangular, the edges rounded or sometimes squared, and often highly polished. A few are thick and nearly cylindrical. Instead of the groove extending around the whole axe, as in North America, there is

simply a narrow notch on each edge. In a single specimen, a small one, a groove completely surrounds it. In some of these axes it is quite obvious, from the small rounded grooves seen at the bottom of the notches, that they were cut by means of sand and cord, a method known to have been practised within historical times. It was by a similar means, according to Oviedo, that some Indian prisoners sawed off their iron fetters, and Mr. Evans succeeded in cutting in two a Swiss stone axe by the same process.* The deep grooves in the stone curbs around the wells at Pompeii and Venice show very clearly how much may be done by the continued action of a cord alone. There is a variety of other stone implements, among them a remarkable lip ornament made of quartz consisting of a cylinder a half inch in diameter and five inches long, with a button-shaped enlargement at one end and a crescentic one at the other, the whole very skilfully and handsomely wrought.

At Taperinha near Santarem, Prof. Hartt discovered an ancient kitchen-midden or shell-heap, consisting exclusively of fresh-water species, but in which fragments of pottery, ashes, and the bones of animals were imbedded. Some of the masses of shells have the appearance of great age, and are consolidated by means of lime deposited by percolation, as in the more ancient of the shell-mounds of Florida.

Besides the prehistoric objects mentioned above, brought by Prof. Hartt from Brazil, there are several articles used by the Indians and negroes on the Amazons at the present time; among them a bundle of haschisch wrapped in husks of corn; a snuff box made of the shell of a large *Ampullaria* with a tube of bird's bone attached forming the mouth piece; two snuff tubes made of right and left bones from the forearm of a bird, joined at one end so as to allow of sufficient motion at the other to permit of their being readily inserted into the nostrils and the simultaneous introduction of two charges of snuff being thereby secured; a mass of guarana and two palatine bones of the great *Sudis* for grating the same; an Amazonian syringe; pieces of the bark of the pottery tree, etc.

* Evans. *Ancient Stone Implements of Great Britain*. New York, 1872, p. 40.

GIFTS.

CHARLES R. GREENLEAF, Assist. Surgeon U. S. Army. Skull of a Palouse Indian, from the banks of the Snake River, at the mouth of the Tucanon near Fort Taylor, Washington Territory, Oct., 1871.

MRS. ROMEO ELTON, of Dorchester, Mass. Three stone gouges, two stone chisels, a spherical stone, a stone spear point, a tool made of bone, six beads made of shell and an arrowhead, all from the farm of the late Frederic Allen, Gardiner, Me., also some arrowheads from the valley of Wyoming, Pa.

DR. S. A. GREEN. Nine specimens of the common kinds of pottery from Malta, and a tinder box.

MISS M. S. FELTON. Three pieces of common pottery from Fayal.

SMITHSONIAN INSTITUTION. A collection of twenty-four casts, consisting of casts of idols from Mexico, and of pipes, axes, chisels, agricultural tools, etc., from the United States. Three of these being duplicates of objects previously sent were in accordance with the request of the Secretary of the Smithsonian Institution sent to the Peabody Academy of Science in Salem.

COL. BABBIT. A perforated quartz implement found at Magnolia, E. Florida.

COL. THEODORE LYMAN. Photographs of an ancient Etruscan cranium, also various objects, consisting of bones, and teeth of animals and a fragment of a glass vessel found at a depth of fifteen feet in making recent excavations near the Roman Forum. A fragment of a fresh water mussel was obtained at a depth of from twenty-five to thirty feet.

PROF. LUIGI PIGORINI. A collection of crescent-shaped handles found in the palafittes or lake dwellings uncovered near the city of Parma.

EDMUND BAYLIES, Esq. Copy of the inscription on Dighton Rock.

A. M. HARRISON, U. S. Coast Survey. Four pieces of terra cotta, two representing human heads and two the heads of animals. One of them, 6109, was taken from a small shell mound on the shore near East Pascagoula, Miss., 1849; one, 6111, from an Indian shell mound on Dauphin Island, and two, 6110, 6112, from an ancient mound near Bayou Casotte, Mississippi Sound, Alabama.

DR. ZENAS E. CROWELL. An ancient Parian vase.

GEORGE H. A. FISKE. A pair of Indian snow shoes and mocasons from Aroostook, Me.

DR. S. A. GREENE. A collection of stone chips from Groton, Mass.

MUSEUM OF COMPARATIVE ZOOLOGY. Four bows, forty-five arrows and two spears from Islands of the Pacific.

COUNT L. POURTALES. A bone spear point from a shell heap at Elizabeth Island, in Terra del Fuego.

HASSLER EXPEDITION. Two bows and eight arrows from Terra del Fuego. The arrows are pointed with glass chipped into the shape of an ordinary stone point. Also from the same source a Fuegian bucket made of bark and used in collecting shell-fish, some of the shells of mussels and limpets commonly used as food, two spear points made of bone and a rib of a seal showing the marks of a cutting tool.

DON HENRIQUE STIMPSON, of the Chilian Navy. A perforated spherical stone of aboriginal make, from Chili, presented through Count Pourtales.

JULES MARCOU, Esq. Two discoidal stones and some fragments of Indian pottery found between the Missouri and Yellowstone Rivers during Gen. Stanley's expedition, 1872. Also a Mojave Indian Idol made of terra cotta and an apron made of strips of bark, worn by the Mojave women, obtained of the Indians by Mr. Marcou during Capt. Whipple's expedition to the Colorado in 1854.

W. H. DALL, U. S. Coast Survey. The skull and most of the rest of the skeleton of an Aleutian Islander. From a memorandum sent by Mr. Dall it appears that "the skeleton is that of an Aleutian antedating the Russian discovery in 1760, and very possibly much older, but certainly before that date. It was taken out of a compartment in the stone wall of an old yourt, one of several forming a prehistoric village on the north end of Ulakhta Spit, Anakanak Island, Captain's Bay, Unalashka. It was lying on the right side, facing the southeast, with the knees brought up to the chin. There were no ornaments or utensils with it. Two other skeletons were found in the same yourt built into the wall in a little compartment." A stone lamp, a fire flint, with various bones of seals and other animals from a refuse heap outside of the yourt accompany the skeleton.

MUSEUM OF COMPARATIVE ZOOLOGY. A collection of spear points made of bone and shell, a spear with a movable head, also the line and seal skin float used in catching seals and, it is said, whales, a wooden fishhook, all from the Northwest Coast.

A birch bark Indian canoe from Eastport, Me., with spears and paddles has been purchased, in procuring which the Museum is indebted to G. A. Peabody, Esq., of Eastport.

REPORT OF THE TREASURER.

To the Trustees of the Peabody Museum of American Archaeology and Ethnology in connection with Harvard University :

The Treasurer respectfully presents his Sixth Annual Report in the following abstract of accounts, and the cash account hereto annexed :—

The Collection Account is charged with

| | |
|---|-------------|
| 9 Massachusetts Five per cent. Coast Defence Specie Notes, due July 1, 1883, each \$5,000, numbers 46 to 54, registered, the gift of George Peabody, Esq. | \$45,000 00 |
| Income from above Notes in currency | 2,539 68 |
| Income from 9 Massachusetts Five per cent. Coast Defence Specie Notes of Professor Fund | 2,539 67 |
| Income from Treasurer's Investments | 173 41 |
| Balance of Worcester Note of \$3,264 66, July 4, 1871, Interest Seven per cent. | 1,193 26 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 2, 1872, Interest Seven per cent. | 2,462 98 |
| Balance of Account settled Jan. 12, 1872 | 90 00 |
| Balance due to the Treasurer | 195 09 |
| | \$54,194 09 |

And Collection Account is credited with

| | |
|---|-------------|
| 9 Massachusetts Five per cent. Specie Notes, as above | \$45,000 00 |
| Balance of Worcester & Nashua Railroad Co.'s Note, \$2,462 98, Jan. 2, 1872, Interest Seven per cent. | 1,082 11 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 1, 1873, Interest Seven per cent. | 2,717 97 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 3, 1873, Interest Seven per cent. | 2,517 17 |
| Payments for Cases in New Hall | 2,484 00 |
| Payments for Collections and Explorations | 224 34 |
| Payments for Incidental Expenses | 108 50 |
| | \$54,194 09 |

The Professor Fund consists of

| | |
|---|-------------|
| 9 Massachusetts Five per cent. Specie Notes, as above, each \$5,000, numbers 55 to 63, registered, the gift of Geo. Peabody, Esq., of which the Income is appropriated to Collection Fund, as the Professorship is not yet filled | \$45,000 00 |
|---|-------------|

The Building Fund is charged with

| | |
|---|-------------|
| 12 Massachusetts Five per cent. Specie Notes, as above, each \$5,000, numbered 64 to 75, registered, the gift of Geo. Peabody, Esq. | \$60,000 00 |
| Income from above Notes in Currency | 3,386 26 |
| Income from Investments by Treasurer | 1,789 89 |
| 3 United States Five-twenty Notes of July 1, 1867, 2 of \$1 000, 1 of \$50 | 2,050 00 |
| 9 Worcester Water Bonds due June 1, 1877, Interest Six per cent. | 4,500 00 |
| 3 Worcester Sewer Bonds, due June 15, 1877, Interest Six per cent. | 2,100 00 |
| 6 Worcester & Nashua Railroad Co.'s Five-ten Seven per cent. Bonds of Dec. 31, 1870 | 6,000 00 |
| Worcester Note, July 4, 1871, on demand at Seven per cent. | 2,168 08 |
| Worcester Note, July 4, 1871, on demand at Seven per cent. | 2,752 28 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 2, 1872, on demand, Interest Seven per cent. | 2,106 74 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 6, 1872, on demand, Interest Seven per cent. | 158 11 |
| | \$87,911 36 |

And Building Fund is credited with

| | | |
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| 12 Massachusetts Five per cent. Specie Notes, as above . . . | \$80,000 00 | |
| 9 Worcester Water Bonds, due June 1, 1877 at Six per cent., S. A. . . | 4,500 00 | |
| 8 Worcester Sewer Bonds, due June 15, 1877 at Six per cent., S. A. . . | 2,100 00 | |
| 6 Worcester & Nashua Railroad Co.'s Five-ten Seven per cent. Bonds of Dec. 31, 1870 . . . | 6,000 00 | |
| Worcester Note, July 4, 1871, on demand, Interest at Seven per cent., S. A. . . | 2,168 08 | |
| Worcester Note, July 4, 1871, on demand, Interest at Seven per cent., S. A. . . | 2,752 28 | |
| Worcester & Nashua Railroad Co.'s Note, July 2, 1872, Interest Seven per cent., S. A. . . | 2,433 85 | |
| Worcester & Nashua Railroad Co.'s Note, Aug. 6, 1872, Interest Six per cent., S. A. . . | 2,370 32 | |
| Worcester & Nashua Railroad Co.'s Note, Jan. 2, 1873, Interest Seven per cent., S. A. . . | 2,600 70 | |
| Worcester & Nashua Railroad Co.'s Note, Jan. 3, 1873, Interest Seven per cent., S. A. . . | 1,888 13 | |
| Worcester & Nashua Railroad Co.'s Note, Jan. 4, 1873, Interest Six per cent., S. A. | 198 00 | |
| | | <u>\$87,011 86</u> |

Investments of the

| | | |
|--|-------------|---------------------|
| Collection Fund, at par, amount to | \$51,122 16 | |
| Professors Fund, at par | 45,000 00 | |
| Building Fund, at par | 87,011 86 | |
| | | <u>\$183,133 82</u> |

STEPHEN SALISBURY, *Treasurer.**Boston, Jan. 15, 1873.*

Dr. STEPHEN SALISBURY, *Treasurer of Peabody Museum of American Archaeology*

1873.

For Collection Fund.

| | | | |
|----------|---|------------|----------|
| Jan. 12. | To Balance of Account | | \$ 90 00 |
| Mar. 20. | To received balance of Worcester Note of July 4, 1871 for \$3,284 66 | \$1,188 26 | |
| Mar. 20. | To rec'd Interest on above Note, at 7 $\frac{1}{2}$ ct. per annum, | 17 62 | |
| | | | 1,210 88 |
| Mar. 28. | To received in part Worcester and Nashua Railroad Co.'s Note of Jan. 2, 1872, Interest 7 $\frac{1}{2}$ ct. | | 1,189 12 |
| Apr. 26. | To received in part of above Note, | | 50 00 |
| July 1. | To rec'd 6 Months' Int. on Mass. 5 $\frac{1}{2}$ ct. Notes in Gold, | 1,125 00 | |
| July 1. | To received on sale of above Gold, at 13 $\frac{1}{2}$ per cent., | 158 09 | |
| July 1. | To received Six Months' Interest on Massachusetts Five per cent. Notes of Professor Fund in Gold, . . . | 1,125 00 | |
| July 1. | To received on sale of above Gold at 13 $\frac{1}{2}$ per cent., | 158 09 | |
| July 5. | To received Interest on Worcester and Nashua Rail- road Co.'s Note of Jan. 2, to 2d inst., | 64 38 | |
| | | | 2,926 56 |
| Aug. 22. | To received in part Worcester and Nashua Railroad Co.'s Note of January 2, 1872, | | 171 75 |
| 1873. | | | |
| Jan. 2. | To received Principal of Worcester and Nashua Rail- road Co.'s Note of July 2, 1872, | 2,926 56 | |
| Jan. 2. | To received 6 Months' Interest on above in full at 7 $\frac{1}{2}$ ct. | 91 41 | |
| | | | 2,717 97 |
| Jan. 2. | To received Six Months' Interest on Massachusetts Five per cent. Notes to 1st inst. in Gold, | 1,125 00 | |
| Jan. 2. | To received on sale of above Gold, at 11 $\frac{1}{2}$ per cent., | 138 59 | |
| Jan. 2. | To received Six Months' Interest on Massachusetts Five per cent. Notes of Professor Fund, in Gold | 1,125 00 | |
| Jan. 2. | To received on sale of above Gold at 11 $\frac{1}{2}$ per cent., | 138 58 | |
| | | | 2,517 17 |
| | To balance carried to New Account, due to Treasurer . | | 195 09 |

For Building Fund.

| | | | |
|----------|---|----------|-------------|
| June 15. | To rec'd 6 Mos.' Int. Worcester Water Bonds to 1st inst. | 135 00 | |
| June 15. | To rec'd 6 Mos.' Int. on Worcester Sewer Bonds to date | 63 00 | |
| July 1. | To rec'd 6 Months' Int. on Mass. 5 $\frac{1}{2}$ ct. Notes in Gold | 1,500 00 | |
| July 1. | To received on sale of above Gold at 13 $\frac{1}{2}$ per cent., | 208 13 | |
| July 1. | To rec'd for U. S. Coupons on Five-twenty Bonds in Gold | 61 50 | |
| July 1. | To received on sale of above Gold at 13 $\frac{1}{2}$ per cent., | 8 53 | |
| July 3. | To received Interest on Worcester Note, July 4, 1871, \$2,752 28 to 1st inst. at Seven per cent. per annum | 94 71 | |
| July 3. | To received Interest on Worcester Note, July 4, 1871, \$2,168 08 to 1st inst. at Seven per cent. per annum | 74 62 | |
| July 5. | To received Six Months' Coupons on Worcester & Nashua R. R. Co.'s Bonds to 1st inst. at 7 $\frac{1}{2}$ ct. . . . | 210 00 | |
| July 5. | To received 6 Months' Interest on Worcester & Nashua R. R. Co.'s Note, Jan. 2, 1872, \$2,106 74 at 7 $\frac{1}{2}$ ct. | 73 73 | |
| July 5. | To received Six Months' Interest on Worcester & Nashua R. R. Co.'s Note, Jan. 6, 1872, \$158 11 at 6 $\frac{1}{2}$ ct. | 4 63 | |
| | | | 2,453 85 |
| Aug. 6. | To received on sale of United States Five-twenty Bonds of 1877, 2 of \$1,000. 1 of \$50. Gold \$2,050, at 15 $\frac{1}{2}$ ct. | | 2,370 32 |
| Dec. 20. | To rec'd 6 Mos.' Int. Worcester Water Bonds to 1st inst. | 135 00 | |
| Dec. 20. | To rec'd 6 Mos.' Int. Worcester Sewer Bonds to 1st inst. | 63 00 | |
| | | | 198 00 |
| 1873. | | | |
| Jan. 2. | To received Principal of Worcester & Nashua Rail- road Co.'s Note of Jan. 2, 1872 | 2,106 74 | |
| Jan. 2. | To received 6 Months' Interest on the above at 7 $\frac{1}{2}$ ct. | 73 73 | |
| Jan. 2. | To received Principal of Worcester & Nashua Railroad Co.'s Note of Jan. 6, 1872 | 158 11 | |
| Jan. 2. | To rec'd 6 Mos.' Int. on the above at 6 $\frac{1}{2}$ ct. per annum | 4 74 | |
| Jan. 2. | To received Six Months' Interest on Worcester & Nashua R. R. Co.'s Note \$2,433 85 to date at 7 $\frac{1}{2}$ ct. | 85 18 | |
| Jan. 1. | To received Six Months' Interest on Worcester Note, \$2,752 28, July 4, 1871, at 7 $\frac{1}{2}$ ct. | 98 32 | |
| Jan. 1. | To received Six Months' Interest on Worcester Note, \$2,168 08, July 4, 1871, at 7 $\frac{1}{2}$ ct. | 75 88 | |
| | | | 2,600 70 |
| Jan. 2. | To rec'd 6 Months' Int. on Mass. 5 $\frac{1}{2}$ ct. Gold Bonds, | 1,500 00 | |
| Jan. 2. | To received on sale of above Gold at 11 $\frac{1}{2}$ per cent., | 178 13 | |
| Jan. 2. | To received Six Months' Coupons on Worcester & Nashua Railroad Co.'s Seven per cent. Bonds . . . | 210 00 | |
| | | | 1,888 13 |
| | | | \$20,229 54 |

etc., in connection with Harvard University, in Annual Cash Account, Jan. 15, 1873. Cr.

1873.

For Collection Fund.

| | | | | |
|-----------|--|----|----------|----------|
| Jan. 23. | By paid Ryder & Harris for Plans for cases in Museum | \$ | 30 00 | |
| Feb. 7. | By paid for Rent of Safe Deposit | | 30 00 | |
| Mar. 20. | By paid Judah Sears & Son on account of cases in Museum | \$ | 1,200 00 | |
| Mar. 28. | By paid Judah Sears & Son balance for above Cases | | 1,200 00 | |
| | | | | 2,400 00 |
| Apr. 26. | By paid Henry Gillman for Collection near Detroit, Michigan | | | 50 00 |
| July 2. | By paid for Worcester & Nashua Railroad Co.'s Note on demand, Interest at Seven per cent., S. A. | | | 2,626 56 |
| July 8. | By paid H. Morley for painting Cases, \$42; Sawin's Express, \$7 61 | | | 49 61 |
| Aug. 17. | By paid H. Gillman for work on Mounds in Michigan | | | 50 00 |
| Aug. 21. | By paid A. A. Kingman for printing Report | | | 122 14 |
| Sept. 18. | By paid Henry Gillman for paid labor on Mounds on St. Clair River | | | 27 00 |
| Dec. 27. | By paid Geo. A. Peabody for Indian Objects \$17 34; Express, \$4 75 | | 23 09 | |
| Dec. 27. | By paid N. S. Shaler for paid for opening Mounds in Tennessee | | 25 00 | |
| Dec. 27. | By paid John Ford for painting, \$4; Thomas Morley painting Cases, \$12 | | 16 00 | |
| Dec. 27. | By paid A. J. Mercer for Freight of Nicolucci Collection | | 55 00 | |
| | | | | 118 09 |

1873.

| | | |
|---------|--|----------|
| Jan. 2. | By paid for Worcester & Nashua Railroad Co.'s Note on demand, Interest at Seven per cent., S. A. | 2,517 17 |
| Jan. 1. | By paid for Worcester & Nashua Railroad Co.'s Note, on demand, Interest Seven per cent., S. A. | 2,717 97 |

1872.

For Building Fund.

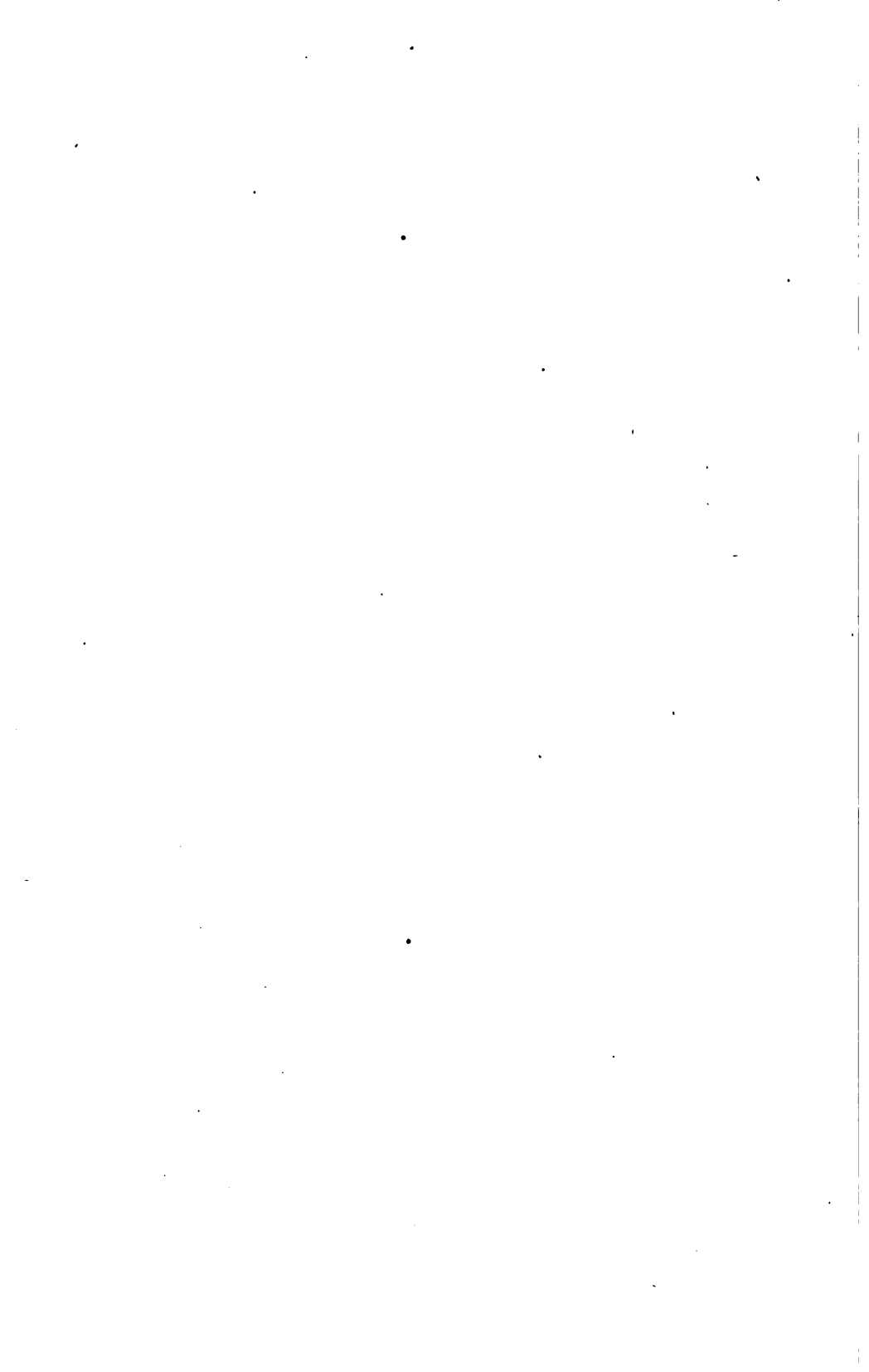
| | | |
|---------|--|----------|
| July 2. | By paid for Worcester & Nashua Railroad Co.'s Note, on demand, Interest Seven per cent., S. A. | 2,433 85 |
| Aug. 6. | By paid for Worcester & Nashua Railroad Co.'s Note, on demand, Interest Six per cent., S. A. | 2,370 32 |
| 1873. | | |
| Jan. 2. | By paid for Worcester & Nashua Railroad Co.'s Note, on demand, Interest Seven per cent., S. A. | 2,600 70 |
| Jan. 3. | By paid for Worcester & Nashua Railroad Co.'s Note, on demand, Interest Seven per cent., S. A. | 1,888 13 |
| Jan. 4. | By paid for Worcester & Nashua Railroad Co.'s Note, on demand, Interest Six per cent., S. A. | 198 00 |

\$20,229 54

WORCESTER, Jan. 17, 1873.

I have examined the securities and vouchers named in the above account, and find the statements to be correct and the account to be accurate.

SAM'L F. HAVEN, Auditor.



SEVENTH ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, MAY, 1874.

CAMBRIDGE.

PRINTED FOR THE TRUSTEES BY THE SALEM PRESS.

1874.

SALEM PRESS,
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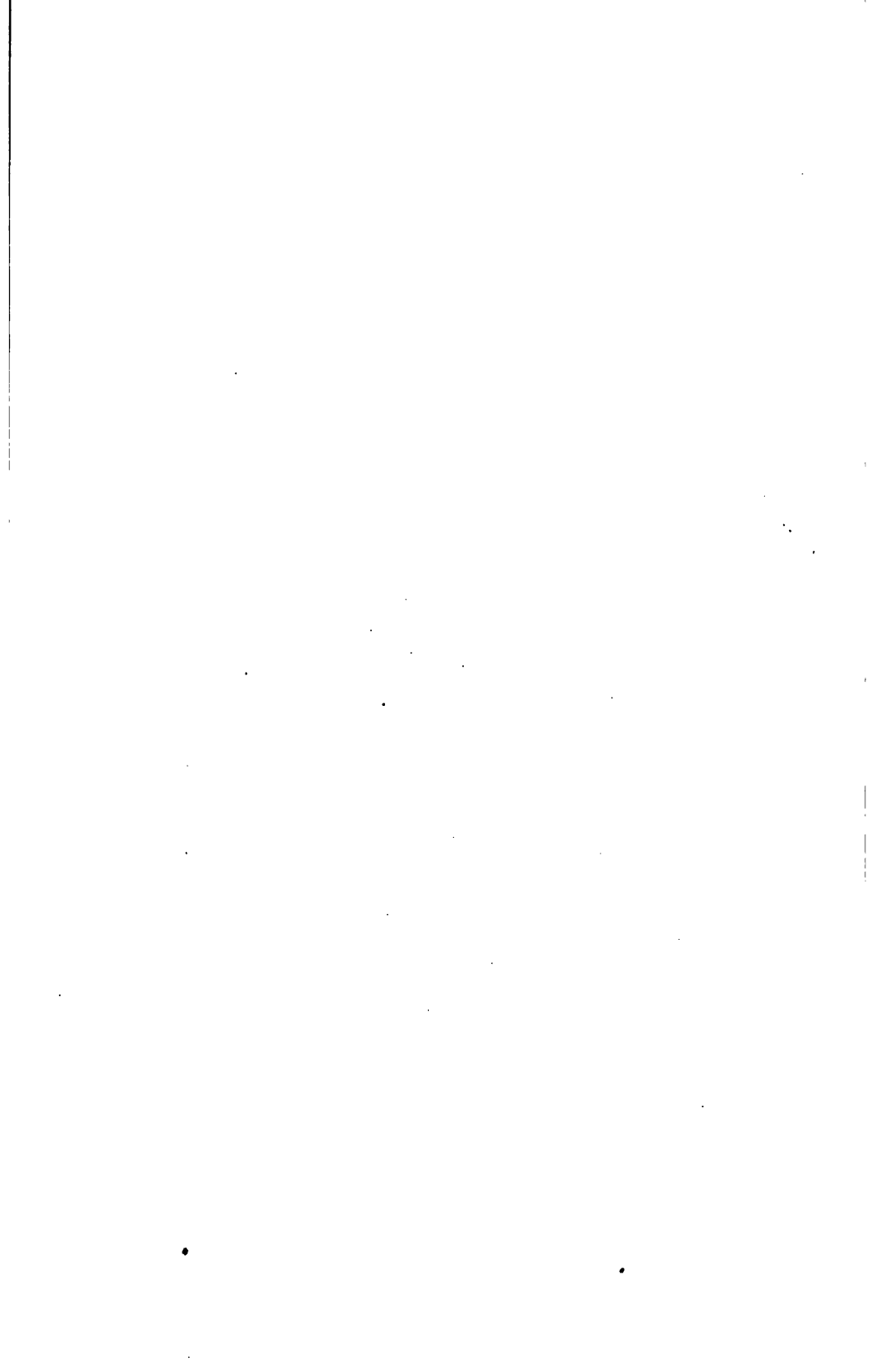
SEVENTH ANNUAL REPORT.

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archæology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Seventh Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

ROBERT C. WINTHROP.
CHAS. FRANCIS ADAMS.
STEPHEN SALISBURY.
ASA GRAY.
JEFFRIES WYMAN.
HENRY WHEATLAND.
GEO. PEABODY RUSSELL.

CAMBRIDGE, May 15, 1874.



At the Annual Meeting of the Trustees of the Peabody Museum of American Archæology and Ethnology, January 15, 1874, the following resolution, offered by the Chairman, Mr. Winthrop, and seconded by Dr. Wheatland, was unanimously adopted :

RESOLVED, That the Trustees cannot forget that their first duty, on this occasion, would have been to return their grateful acknowledgments to Professor LOUIS AGASSIZ for the large and valuable contribution which he had recently made to our Museum from his collections during the late Hassler Expedition, and to offer him a renewed assurance of our gratitude for the active interest he had taken in the rise and progress of the Institution committed to our charge ; and that we deeply lament that nothing is left for us now but to express the sorrow we feel, in common with the friends of Science everywhere, at the loss of one, whom we have all so loved and honored, whose scientific labors and accomplishments have justly secured him a world-wide fame, and whose memory will ever be affectionately cherished by all who knew him.



REPORT OF THE CURATOR.

THE Curator respectfully submits to the Trustees of the Peabody Museum of American Archæology and Ethnology the following Report on the additions to its collections since the last Annual Meeting; also some remarks on the practice of cannibalism among the American aborigines.

I. AGASSIZ COLLECTION.

This collection consists of a large and very valuable series of objects obtained by Professor Agassiz during the voyage of the *Hassler*. This vessel, in the service of the United States Coast Survey, sailed from Boston to San Francisco, by the way of the Straits of Magellan in the latter part of 1871 and the first half of 1872, stopping at many ports on the Atlantic and Pacific coasts. At all of these points Prof. Agassiz interested himself in behalf of this Museum and collected as far as practicable specimens pertaining to Archæology and Ethnology. By reference to former reports it will be seen that we were already indebted to him for many important gifts transferred, at his suggestion, from the Museum of Comparative Zoology to our collections. These, with the recent contributions, will remain a memorial of the broad interests and generous sympathies of the great master whose recent death the scientific world so deeply laments.

A large part of the series was collected at Ancon near Callao, in Peru, chiefly by T. J. Hutchinson, Esq., the British Consul at that place, and by him generously presented to Prof. Agassiz. There are other objects from Brazil, Tierra del Fuego, the Chincha Islands, Easter Island and Central America. The whole com-

prises collections of crania, earthen vessels, ornaments of gold and silver, textile fabrics, spindles, needles, yarns and weapons of aboriginal make.

Crania. The collection of Peruvian skulls exhumed from the burial places, or *huacas*, of Ancon and its neighborhood, is one of the largest which has been made from any single locality, the whole number obtained exceeding 330 specimens of different ages and conditions.* From these the curator was authorized to select such as might be thought desirable for rendering more complete the valuable series we already have, chiefly presented by the Hon. E. G. Squier. Seventy crania were taken for this purpose. Without going into a full account of these at present, a few observations will be offered on points which deserve special notice.

One of the chief characteristics of Peruvian skulls is, as is well known, artificial deformity, resulting either from compression applied from before backwards, shortening the cranial portion and increasing its breadth to a corresponding degree, or applied in a circular manner so as to diminish its transverse and increase its longitudinal diameter, as is seen in the crania from the *chulpas* near the great lake of Titicaca and from other burial places. With a single exception all the crania in the collection we are speaking of belong to the first group, and are more or less flattened from before backwards, showing an uniformity of habit in the region about Ancon. In seven of the series the flattening is carried to such an extent that the breadth of the cranium considerably exceeds the length, but between these and the normal skull are so many gradations that it is hardly possible to decide where one begins and the other ends.

The distorted crania are mostly unsymmetrical, and in a few cases the absence of symmetry involves not only the occiput, the part almost exclusively the seat of it, but also the face, so that the jaw and cheek bones of one side of the face are thrown back of their usual position.

Several of the crania, eleven in all, are not flattened or in any

*For an account of other crania, as well as of earthen vessels collected by Mr. Hutchinson at the same time with those here noticed, the reader is referred to communications made by Mr. George Busk and Dr. J. Barnard Davis in the "Journal of the Anthropological Institute of Great Britain and Ireland," April 1, 1873.

way distorted, and their measurements are given in the following table:—

TABLE OF MEASUREMENTS OF NORMAL PERUVIAN CRANIA.

| CATALOGUE NUMBER.* | CAPACITY. C. CENT. | LENGTH. MM. | BREADTH. MM. | HEIGHT. MM. | INDEX. |
|-----------------------|-----------------------|----------------|-----------------|----------------|--------|
| 7172 | 1100 | 162 | 134 | 117 | 0·827 |
| 7192 | 1120 | 154 | 131 | 126 | 0·850 |
| 7180 | 1040 | 156 | 127 | 117 | 0·814 |
| 7196 | 1260 | 162 | 134 | 128 | 0·827 |
| 7159 | 1090 | 168 | 132 | 113 | 0·782 |
| 7191 | 1100 | 165 | 130 | 112 | 0·787 |
| 7208 | 1070 | 158 | 130 | 121 | 0·822 |
| 7181 | 1200 | 166 | 135 | 123 | 0·813 |
| 7175 | 1130 | 158 | 138 | 121 | 0·873 |
| 7206 | | 159 | 134 | 121 | 0·842 |
| 7185 | 1200 | 169 | 128 | 119 | 0·757 |
| Maximum | 1260 | 169 | 138 | 128 | 0·873 |
| Minimum | 1040 | 154 | 127 | 112 | 0·757 |
| Mean | 1129 | 161 | 132 | 119 | 0·819 |

These crania are of considerable value, for if they belong to the same race as the others, and there is nothing to suggest the contrary, as they were found buried with them, they may be regarded as having the natural shape the skull took in this region when no attempts at distortion were made. They are quite symmetrical, and the occiput instead of being flat or assuming a more or less vertical direction, as in the distorted crania, has the ordinary natural curves, and in some of them is prominent. The forehead is moderately developed in all except two, where it is quite low and retreating. As will be seen by the table they are all small, the average capacity of ten of them being 1129 cub. cent., or 69 cubic inches, 6 inches less than the average Peruvian, and the largest of them 1260 cub. cent., or a little less than 74 cubic inches. As more than half appear to be the skulls of

* Refers to the number of the specimen in the Catalogue of the Peabody Museum.

women, we have in this an explanation in part at least of their small size. They are all short (*brachycephalic*), the average proportion of the breadth to the length, the last being taken as 1.00, is 0.82. There is nothing in either of them which suggests the form of which the distorted crania might be considered an exaggeration, as has often been supposed with regard to Peruvian crania in general. There are among the distorted specimens a few in which the change of form is very slight. The undistorted crania above noticed, as far as they go, sustain the conclusion that the prevailing natural form of the crania was brachycephalic but of regular outline, and that wherever a considerable deviation from the natural form exists, it is artificial.*

The average capacity obtained from the whole collection, including those having the distorted as well as the natural shape, varies but little from that of previous measurements of ancient Peruvian crania by Morton and Meigs, or from that obtained from the Squier collection and given in the Fourth Annual Report of this Museum. The largest cranium measured 1550 cub. cent., or about 95 cub. inches, and is a little larger than that of the average European, and the smallest 1020 cub. cent., or 62 cub. inches, which is 13 inches less than that of the average Australian. There exists, therefore, between the largest and smallest a range of 33 cubic inches; in other words, the smallest has a capacity of only 66 per cent. of the largest. These results agree with all previous conclusions with regard to the diminutive size of the ancient Peruvian brain.

7179 is a cranium from Pacocha, Ilo, Peru, and is exceedingly distorted in the reverse direction of the crania just described, viz., lengthwise. Two large grooves or depressions on the surface show that pressure has been applied in two directions, viz., by a band passing in a circular manner over the forehead and around and beneath the occiput, and the other nearly at right angles to it, passing from side to side over the top of the head, just behind the coronal suture. This arrangement of the pressure would leave two regions where the brain would be free to enlarge, viz., the upper part of the frontal, and the hinder parietal and upper occipital portions. The latter are the seat of the chief enlargement, and are protruded backwards so as largely to over-

* Mr. Squier says "I found no skulls exhibiting artificial compression in or around Cuzco." (See *Thesaurus Craniorum* by Dr. J. Barnard Davis, p. 243, specimen 1442.)

hang the occipital protuberance.* The crania from the *chulpas* in our collection, six in all, show but one line of pressure, viz., that first described, and the protrusion is consequently more upwards. They are all symmetrical.

Two of the crania have an especial interest as showing recovery from extensive fractures, involving injury to the brain, and in neither of which are there signs of any attempt having been made to remove the fragments, or to restore them to their natural position, by mechanical means.

7206 is the skull of an individual past the adult age. On the left side, in the middle of the fore part of the parietal bone, and extending somewhat into the frontal, is an elliptical depression one-third of an inch deep, two inches and a half long, and one inch and a quarter wide, the result of an old fracture. Four fragments of skull were driven in, wedged into their places, and are now firmly consolidated with each other and the adjoining bone. On the outside the rough edges and the angles have all been rounded off by absorption. On the inside the projection does not correspond with the depression on the outside, as the absorption has become much more complete. The scales and spiculæ, which no doubt existed at the time of the accident, have been consolidated and completely smoothed off so as to give a rounded instead of a sharp angular projection into the cranial cavity. This injury could not have taken place without considerable laceration and perhaps loss of brain substance. The recovery was complete.

7165 belonged to a fully adult person and has a very extensive fracture of the frontal bone, involving most of the right and a part of the left half, and breaking it into five or six large fragments. The extreme length of the injury from side to side is four inches and a half, and its breadth somewhat over two. The whole has the appearance of having been produced by a heavy blow as with a club, crushing in the middle portion of the forehead and at the same time causing the fragments on the right side to decidedly bulge out. The displacement of the fragments must have been

*This would indicate a somewhat different manner of distributing the bandages than that described by Morton. According to him, one and the same bandage passed around the forehead and under the occiput and thence over the vertex of the head (see his Catalogue of Skulls, specimen 1277). The skull from Ilo shows that the bandage going over the top of the head must either have been fastened to the horizontal one, or have passed under the chin, otherwise it would be impossible to keep it in place.

attended with pressure on, and probably laceration of, the membranes and brain. As in the instance just described there was complete union of the fragments and removal by absorption of the points and rough edges. Inflammation, consequent upon the injury, has left its traces in the form of a thin deposit of porous bone, extending over the adjoining surfaces and especially downwards, where it reaches the orbits of the eyes.

The appearances in both cases show that these individuals must have survived these grave accidents some months, perhaps years, though as far as appearances go, nothing was effected in the way of removing fragments, or of restoring them to their original places so as to relieve the brain, as would be the case in ordinary surgery.

In contrast with the preceding, if the views we give are correct may be placed the instance which follows. 7198 is the skull of an adult and shows the effect of an injury of long standing in the outer portion of the frontal bone on the right side and near the coronal suture. Beginning three or four millimetres from this suture at a point 25^{mm} above the wing of the sphenoid is an irregular lozenge-shaped opening measuring 40^{mm} in length and 23^{mm} in its widest part, and extending obliquely upwards and forwards. The edges of the opening are regular, smooth and strongly bevelled, and the angles between these and the outer table somewhat rounded. At the outer angle the sides have a deep groove between them and the perforation is here partially closed by a thin plate, which appears to be a fragment of the inner table of the skull considerably wider than the part of the opening it underlies, and which had been detached at the time of the injury but afterwards coössified with the parts from which it had been separated. In its present condition the perforation of the walls is considerably smaller than at first, and the actual opening is pentagonal instead of lozenge-shaped. In the neighborhood of the injury there are to be seen traces of inflammation with a deposit of porous bone both on the inner and outer tables of the skull. With the exception of the scale of the inner table already described, the piece or pieces resulting from the injury have disappeared. The attachment of the scale of bone above referred to, the rounding of the edges and the deposit of porous bone all show that the individual survived the injury for a long time.

The appearances of this opening are such as to lead to the sup-

position that it was not made in its present form by a blow from a penetrating instrument. In this case the edges would be bevelled in the opposite direction, that is, the opening increasing in size from without inwards, instead of diminishing in this direction as is actually the case. The edges clearly suggest that they were formed by a process of either rasping or cutting. The view of the case which we are led to take is that an opening had been made by mechanical violence, and that it had been enlarged and the fragments removed by artificial means. If this be correct it affords additional evidence of the extent to which the ancient Peruvians had carried the art of surgery.

Among the crania brought from Peru, by the Hon. E. G. Squier, was one from which a regularly lozenge-shaped piece had been sawed from the frontal bone by means of cutting four grooves intersecting each other so as to liberate the included portion. This operation was believed by the very high surgical authorities in Paris who examined it, among them Broca and Nelaton, as having been done during the life of the individual, as the bone adjoining the opening thus formed showed signs of inflammation.

The instance we are describing differs from the preceding in the absence of distinct grooves, excepting at the outer angle of the opening, a difference which may be, in part at least, ascribed to the fact that in one case death followed soon after the operation, and in the other at a very much later period and after the parts involved had undergone considerable changes from the effects of inflammation and absorption. As already suggested we are inclined to the view, even if the bone had been sawed, that the opening had at least been enlarged by a process of rasping and scraping.

There are two crania which show the marks of blows from a round or blunt pointed instrument, probably of some kind of hammer, and which were, it may be presumed, the cause of immediate death. The effect of these blows has been to punch clean round holes through the skull without radiating fractures, or, when delivered with less force, as was the case in some of them, simply to indent the outer and at the same time scale off the corresponding portion of the inner table, without displacing the spongy substance, *diploe*, between the two. In specimen 7177 there are marks of seven blows, in which these two varieties may be seen. A single hole made in a similar way to the preceding exists in

one of the crania presented by Mr. Squier, and in which the destruction of the walls is complete. This kind of injury is not unfrequent in Peruvian crania.

It is not improbable that in some cases like those just described, a surgical operation either of sawing or rasping was resorted to to facilitate the removal of fragments and thus relieve the brain.

Peruvian Microcephalic Skull. Specimen 7200 came from Ancon, and belonged to an individual not quite adult, as the non-union of the basilar and sphenoid bones shows. All the teeth are protruded except the third molars, which appear to have aborted as there are no signs of them in the alveolar margin of the jaw. The crowns of the molars are much worn.

The general form of the skull is not unlike that of some of the other crania which have been flattened from before backwards, but otherwise is not remarkable for its unnatural shape. The frontal bone is much slanted backwards, has a decided ridge corresponding with the position of frontal suture, and is slightly concave on each side of it. The length of the head is 127, breadth 109, height 111^{mm}. The frontal diameter is 80 and the zygomatic 112^{mm}. The breadth is 0·85 of the length. The thickness of the skull measures from 4 to 8^{mm}. The internal capacity is 530 cub. cent., or 33 cubic inches, which is 0·44 of the size of the average Peruvian cranium.*

The jaws, bones of the face and teeth, are all well formed and there are no marked signs of idiocy so common in crania which are much under the usual dimensions. It is very probable, however, in view of the diminutive brain, that idiocy must have existed.†

The frequent occurrence of two other abnormal conditions, rare in the crania of most races, deserves mention. One of these is the third occipital condyle, first noticed by Meckel and more recently studied with care by Halbertsma. Of seven cases observed by this anatomist six were from the Indian Archipelago, and only one was European. There are two instances in the one hundred Italian crania of the Nicollucci collection presented to the Museum by Col. Theodore Lyman. Dr. J. Barnard Davis has also called attention to this subject in his "Thesaurus Craniorum."

* Notwithstanding being nearly adult, it is very much smaller than the crania of some Peruvian children not over seven years of age, one of which has a capacity of 950, another 920, and a third 810 cubic centimetres.

† See Microcephalic skull from Mauritius, p. 24.

Of the 330 Peruvian crania, brought from Ancon by Prof. Agassiz, seven had a third condyle, which is a much larger proportion than was observed by Halbertsma. This condyle varies much in size, the smallest occupying about one-third and the largest nearly the whole of the space between the normal condyles. Six of them are on the median line, and one is to one side and joins the left occipital condyle. In two the articular surface is broad and rough as if it had been covered with intervertebral substance, but in the others smooth as if it formed an ordinary movable articulation, with the odontoid process of the axis. With the exception mentioned the appearances are as if this condyle had been developed from a single median process, there being no signs of primary division. As the atlas and axis are in all cases absent, it is impossible to show with certainty what the relation of this third condyle was to either of them and especially to the axis. There can be no doubt, however, that it articulates directly with the odontoid process.

The second anomaly is the presence of a bony tumor in the outer ear opening. This has been already observed by Welcker in Peruvians, and we have noticed it in crania from the Hawaiian Islanders. In the collection brought by Prof. Agassiz from Ancon it is found in eight crania, or one in 41.25. This is a very much larger proportion than in Europeans, in whom it is rare, averaging, as I am informed by Dr. C. J. Blake, who has devoted himself to the diseases of the ear, only about five in a thousand of the cases treated for diseases of this organ; but as they rarely produce much inconvenience they are not always offered for treatment, and consequently the average just given is probably too low. The tumors are almost exclusively attached to the tympanic ring, generally two in number, one on the front and the other on the back of the meatus, but sometimes there are three or four. They vary in size from a pin's head to that of the whole calibre of the canal, which in one instance they completely filled. In most of them when the integuments were in place the meatus was without doubt completely obstructed.

Earthen vessels. There are fifty-one pieces of earthen-ware showing considerable variety in the kinds and various degrees of skill used in the manufacture. Many are of the ordinary and well known forms, and a few only require especial notice. Three of

these are of large size and while preserving the form of a vase, are made to rudely represent the human body by the more or less complete indications of limbs and features. They are of the following sizes :

| | | | | | | | | |
|------|----|-------|--------|------|-----|------|--------|--------|
| 7224 | is | 15.00 | inches | high | and | 8.75 | inches | broad. |
| 7225 | " | 17.75 | " | " | " | 9.50 | " | " |
| 7226 | " | 13.50 | " | " | " | 8.00 | " | " |

The body of the vases is egg-shaped and consequently incapable of being maintained in a vertical position without support. The arms and legs are very rudely represented by ridges slightly raised above the surface, and the feet by slight projections. The hands project more freely, have the fingers indicated, and grasp a cup of a conical shape and resembling specimens 7254-56. The neck of the vase is either cylindrical or slightly bulging, and by the addition of features is made to represent the human head, but between it and the body there is no proper neck. The mouth part of the vase is somewhat flaring, or tunnel-shaped, has ornaments raised upon the surface and is painted, the whole representing a cap. The different parts of the face are more or less colored, and the lower part of the cheek is painted as if to represent a beard.

7223 is also an egg-shaped vase, in general resembling the preceding but more carefully ornamented. Instead of grasping a cup in the hands, these support, by means of bands passing over the shoulders, two small vases resting upon the upper part of the back.

The above are all so nearly alike that there seems no doubt they were intended for the same purpose, probably holding water. As the largest has a capacity of but little over two gallons, they cannot be classed as burial urns unless they were intended to hold simply calcined bones, or small portions only of the body.

7227 and 7247 are jugs with handles, have depressed spherical bodies, and the necks bear the features of the human face. In 7227 there are no limbs, though the hands are rudely represented, as if to suggest the idea of arms. The same is the case with 7247, but the arms are in addition painted.

7229 is a large egg-shaped vase, and has four broad grooves descending on the sides like the grooves of a melon, and between these are broad dark stripes. It has a capacity of about three

gallons, and is surmounted by a small neck with four handles at regular intervals, the handles imitating the legs of an animal. On one side is an animal's head with large ears, not unlike those of a bat, and on the opposite a short tail.

7254-56 are cups bearing the shape of a truncated cone, one of them with an ornamental band painted around the lip.

7257-72 comprise a series of sixteen flat vessels or dishes, of the size of, but somewhat deeper than, a common saucer. They appear to have been made in sets, as several of them bear the same device painted on the surface. These will be referred to again in connection with the mode of manufacture.

7251 may be compared to a tall beaker, is neatly made and has a graceful form. The body is cylindrical, a little less than eight inches high and three and three-quarter inches in diameter; it is slightly contracted near the bottom, but enlarges again into a well made base. The lower third is painted black and the rest with long, narrow, vertical stripes on one side, and four transverse rows of short, vertical, alternating stripes on the other. Two small handles of different patterns are attached near the lip. One is in the form of a loop and the other of three small spheres one above the other.

7244 is a small vase with a pointed bottom, flaring neck and handles on the sides. Two serpents are represented in relief on opposite sides of the upper part of the body.

There are several other vases of different patterns but do not require especial mention.

The only further remarks which seem necessary relate to some of the methods of manufacture.

It is conceded by all who have examined into the subject, that the potter's wheel was wholly unknown to the aborigines of either North or South America. The art of pottery was, therefore, necessarily a laborious one; for each piece, in most cases, was modelled throughout exclusively by hand, shaping tools being occasionally used. The amount of labor required would necessarily increase with the complication of form and the degree of ornamentation of a given article. The difficulty growing out of this slowness of production and the time required for each piece was, however, met in several ways by the use of natural or artificial forms as moulds. Gourds are said to have served for this purpose, but as the pot could not be removed, the mould would necessarily be destroyed

in the burning, each gourd yielding but a single vessel, but as gourds could be had in considerable numbers, the reduction of labor would be large. Other vases especially the larger ones were sometimes moulded to the interior of a basket, which last served as a scaffolding until the clay was dry, and was destroyed when the vase was burned, leaving its imprint on the surface. In these cases too, the production of articles would be quite limited as a new basket must be made for each.

In the art of pottery as practised among civilized people, the two means of giving shape, which have vastly reduced the labor and rendered the production of copies almost unlimited, are the potter's wheel which enables the artisan to work much more rapidly and at the same time renders truer and more graceful forms possible, and the mould so constructed that large numbers of pieces can be made having identical size and shape. Where articles are reproduced in great numbers, as in those of common household use, the mould replaces the wheel and renders the production of them almost unlimited.

It appears from the specimens in the collection that the inventive faculty of the Peruvians enabled them to devise this last process which so largely facilitates the production of modern earthen-ware. How extensively it was used it will be impossible to say from the examination of so small a number of specimens as those we are now describing. The device adopted by them as indicated by the vases we have was to construct the mould in two parts, make each half of the vessel separately, and then join them together by a welding process while still in the soft state, just as is done in the modern potteries. This process has been practised in specimens 7232, 33, 34, 35, which are vases with pear-shaped bodies and narrow necks. The outer surface is remarkably smooth, and the curves extremely regular in each, especially in 7232, 33, 34. A ridge, readily seen, extends from the neck down the sides and across the base, dividing it into two equal parts, and which is evidently the result of the pressing together of the two halves of the vase which have been welded along this line. In 7232 the welding has not been quite complete and a crack has followed its course on one side from the neck nearly to the base. In two or three instances in consequence of an incorrect exposition of parts, the edge of one-half at several points projects beyond the other. 7232, 34 and 35 are decidedly flattened and

the surface is thus divided into two faces, a front and back, and these unite along the ridge just mentioned. We have not here, as in other cases to be described farther on, repeated copies from the same mould. To find such would be a mere matter of chance, but there can be little doubt that the moulds giving these forms would have been permanent ones from which large numbers of copies might be made.

In the instances just described the surfaces are smooth and have no other than painted ornaments. In 7228 we have evidence of still farther progress in the potter's art. This may be described as a mug rudely fashioned in the form of the human body, not unlike some of the grotesque forms seen in the common crockery stores. The head forms the upper and the body the lower half and the two are nearly of the same size with only a slight constriction for the neck. The limbs are represented by ridges raised upon the surface; the hands project free and grasp a cup somewhat resembling a dice box. The nose, eyes, mouth and chin are all represented in relief. The ears are provided with large conical ear ornaments, the former being represented by slender bands forming loops which hold the ornaments in place and through which these are thrust. A strongly marked ridge, showing the line of welding, extends as in the other cases around the sides and base, and which corresponds with the union of the fore and hinder parts of the body. All the details, except the hands and the cup they grasp (there are signs that these parts were subsequently added as handles are added to pitchers), were given by the mould.

Of the saucer-shaped vessels previously referred to, the large portion have a foot which was evidently made in a mould. Two of them have a device within the circular ridge forming the foot which is obviously made in this way. Three pieces, viz.: 7263 7264 and 7270, are all repetitions from the same mould. The ridge or foot is of exactly the same size and shape in all, and it may be added that the three pieces bear the same device painted on the exterior.

We have thus evidence to show that the art of pottery was sufficiently perfect to allow the Peruvians to repeat copies of their works with either simple or complex surfaces without the necessity of modelling them anew each time. Where ornaments in relief exist they were made in the same way that similar kinds

of ornaments are at the present time in the potteries of different parts of the world.*

It may also be mentioned that some of the vases in this collection as was shown in repairing 7223, the neck and mouth portions and which represent a head were made separately and afterwards joined. Similar methods were used in Central America.

A fact worthy of notice is the existence of a conical ornament thrust through the ears, in specimens 7224, 7225, 7226, 7228. These resemble ornaments to be seen in several of the terra cottas from Central America obtained by Dr. Berendt and now in our collections. In the Central American specimens the ornament is of a globular form in some and conical in others.

7240 is a small vase, the lower half of which, was made in a mould as is readily seen by the regularity and smoothness of the surface and the upper portion built upon it by hand. The line of union of the two is easily seen both on the inner and the outer surface.

7380 is the figure of a man in terra cotta, without clothing except a belt and apron and with a heavy weight or perhaps ornament suspended from the neck by a cord.

7388 represents a monkey, in the same material, probably a *Cebus*, in a sitting attitude, one hand applied to the back of the head, and the other holding to the mouth what appears to be some kind of fruit. An ornamented belt surrounds the waist, indicating that it was intended to represent a domesticated animal. This figure evidently was an ornament to a jar and has still attached to it a portion of the walls. Though rudely executed it represents the general features of the animal correctly.

Ornaments of Gold and Silver. There are twenty ornaments made of gold and were all obtained from the Chincha Islands. Four of these are made of very thin sheets of which two, 7275 and 7290, are in the form of parallelograms from seven to eight inches long and three and four wide with the surface crossed by

* Since writing the above we have seen a communication made by Dr. J. Barnard Davis, to the Anthropological Institute of Great Britain and Ireland, April 1, 1873, in relation to some earthen vases brought by Mr. Hutchinson from Peru. Dr. Davis expresses the belief that one of the vessels (No. 2), in the form of a gourd, was "cast from a clay mould taken from a natural specimen, as there is the appearance of a seam along the middle of the bottom." Of No. 4 he says, "from the marks of seams, at the sides, it is probable that the body of this vessel has been made in two halves." See also the remarks of John E. Price, F. S. A., at the same meeting.

lines extending obliquely from side to side, forming lozenge-shaped spaces. The edges and corners are perforated as if to attach them to the dress.

7273 is about two and one-half inches square with the angles prolonged and 7274 is of a trapezoidal shape and has a series of small but similar shaped pieces suspended by threads from its lower border.

7291, 92 are made of thick plates of gold nine to ten inches long and rudely represent a female figure of which the general outline only is cut out; the arms, legs and features of the face are represented in relief by ridges hammered up from the opposite side. 7289 is a smaller figure, with the different parts similarly represented. 7281 is a cylinder of gold made by rolling up a strip and bringing the ends together, but they are not joined. 7280 is a thin concavo-convex disk of gold, an inch and a half in diameter. 7279 is made of two such disks, the edge of one turned over that of the other, the two forming a lens-shaped ornament; a portion is cut out from the edge for the purpose of admitting a handle, and a hole drilled for securing this in its place by means of a pin. 7282 and 7283 are ornaments, probably, and show that the existence of the art of soldering was known to the Peruvians. They are made of a disk of gold like 7280 but each has attached to its concave side a cylinder of silver. This is made of a strip rolled up, the edges neatly soldered and the free end of the cylinder covered by a silver plate or cap also soldered in its place, and the cylinder thus formed is in turn soldered by the open end to the concave side of the gold disk. This illustration of the art of soldering different metals by the Peruvians is worthy of notice. 7278 is a strip of thick gold five and a quarter inches long and nearly two wide, from a part of which triangular pieces have been punched.

7288 is a pin an inch long surmounted by an ornament cut from thin gold.

The remainder of the gold pieces are rudely made, and are of uncertain use, but appear to have been intended to be attached to the dress as ornaments.

There are twenty-three pieces of silver some made of thin sheets crossed with oblique lines as in the case of the first mentioned gold ornaments. There is a single figure of the human body, eight inches long, but neither limbs nor features are represented.

A portion of the head has been destroyed by oxidation. It is slightly convex on one side and concave on the other where the marks of the hammer can be distinctly seen. 7317 is a thin strip of silver nearly fourteen inches long and two wide, with four stripes of vermillion red painted on one side. There are three disks from one and a half to two inches in diameter and which resemble those made of gold. One of them evidently formed a part of an ornament like 7279. 7315 is a disk three inches in diameter, but partly destroyed with a circular ridge about midway from the centre to the edge, the included portion being painted with vermillion.

7309 is a cup shaped piece of silver an inch and a half in diameter, but partially destroyed; there are two slits perforated in one of the sides.

7316 is a large sheet of silver much oxidized. On each side are attached strips of silver, which have also been partially destroyed by oxidation. These are attached to the central piece by means of short wires passed through the edges of the adjoining portions and both the ends clinched upon the same side of the plate. The whole measures thirteen by eighteen inches and is of the thickness of a playing card. 7318 is a narrow strip two feet and seven inches long made of thin gold with an oval enlargement in the middle, covered with marks resembling hieroglyphics, probably worn as a band or fillet.

Among the objects of interest exhumed with human remains from the *huacas* are, a woman's work-basket neatly made with a hinged cover and containing various articles of use, such as spindles with neatly ornamented weights, some of them still holding the yarn as it was spun, balls of yarn, needles made of slender pieces of wood the eye finely drilled, combs, wooden implements of uncertain use, etc.

There is also a large collection of textile fabrics of some finely woven cotton and printed with color, fragments of nets for fish, also coarse rope netting used for covering the mummies, cordage of various sizes, matting, a cup made of a gourd and holding ears of corn, etc.

Besides the articles taken from graves is a collection of yarns of different colors made by the modern Indians.

Weapons from the Amazons. These consist of a spear 8½ feet

long, made of palm wood, and ending in a long and broad head, a bundle of seven slender spears of about the same length as the preceding with slender points, poisoned; these last are neatly sheathed, each in its own case and all the cases bound together, the seven making a compact bundle; a bow handsomely bound with cotton twine, and bundles of arrows. These are between five and six feet long; the shafts are feathered and made of a long unjointed stem, and pointed with broad, long, leaf-shaped heads made of bamboo. The latter are more or less pointed and barbed. Others have slender points of palm wood with simple barbs cut on the sides or have in addition a barb at the point made of bone neatly received in its place. Some of these last appear to be poisoned with woorara. There are two good specimens of the *zarabatana* one six and the other seven feet long. These are made from some species of palm wood, neatly bound with strips of vegetable fibre called by the natives *jacitara*, spirally coiled from one end to the other and the whole covered with *kurumanni* wax—a cement made of black wax and pitch. The bore of these simple but effective instruments is remarkably true.

From Central America are five pieces of earthen-ware. One of these, intended for a vessel, is fifteen inches long, represents a quadruped with a long snout, probably a *coati*. The body is hollow and on the back is an opening two inches in diameter and surrounded by a neck. A second is a whistle and is in the form of a cat and corresponding almost exactly with those seen figured in accounts of Central American objects. Three other pieces are quite similar to each other in their general features but of different sizes and rudely represent a female figure sitting, holding a child on one arm. The head in all is somewhat remarkable, that portion above the eyes being low and flat, while the nose is of large size and extremely prominent. The mouth and jaws recede so as to be inconspicuous, giving the features an idiotic look. The profile reminds one, though exaggerated, of the figures seen in Central American sculptures. The head of the child is distinctly represented and has the same large nose, low forehead, and receding lower parts of the face, as the parent, but the arms are only imperfectly indicated and the legs and lower part of the body not at all. The arms of the mother are represented by

arches projecting from the sides, and the legs by cones at right angles to the trunk but not divided into the different parts nor are the feet at all represented. They are supposed to be idols.

7395 is a remarkably well wrought *metaté* from Central America. It is made of lava; is circular, nearly fifteen inches in diameter and eight and a quarter high. The top forms a slightly concave dish an inch thick, and has just beneath its edge a series of eleven heads of an animal, probably of the panther or jaguar, well chiselled. It is supported by a hollow conical pedestal spreading out at the base and perforated by four equally distant narrow vertical openings or slits. The whole is remarkable for its symmetry and neatness of execution.

Microcephalic skull from Mauritius. We have no history of this skull beyond the fact that it was obtained at Mauritius by Nicolas Pike, Esq., late U. S. Consul at this island, and by him presented to Prof. Agassiz. This remarkably small skull has the general features of the negro type to an exaggerated degree.

Its length is 132, breadth 91, height 90, and breadth of frontal 70^{mm}. The breadth is 0.68 of the length. The internal capacity is 400 cubic centimetres or about 25 cubic inches, a little more than one-third of the average negro, and about the same as that of the chimpanzee. The jaws are extremely prognathous, the forehead very low, narrow and retreating, and has a ridge corresponding with the former frontal suture, but none of the normal sutures of an adult are closed. The ossification is complete in all respects and the teeth are all fully developed and somewhat worn. The third molars of the lower jaw have disappeared and their alveoli are partly filled up. Both jaws are regularly arched. The nasal opening is low, the height and breadth being equal. The edge of the squamous portion of the temporal bone is but very slightly arched and articulates with the frontal for the space of 15^{mm} on the right side and 8 on the left, instead of being separated from it by an intervening parietal as in ordinary crania. The temporal ridges reach the upper part of the head and are separated from each other by a space an inch and a quarter wide. As will be seen by the measurements the cranium is remarkably long and the fore part of it is very narrow. There is a strong projection of the occiput above the protuberance and the fossæ which correspond with the hinder cerebral lobes are pronounced to a

corresponding degree. The texture of the bone is dense and the cranium without the lower jaw weighs 342 grams. The zygomatic arches stand out free and leave a large interval between them and the sides of the head. The lower jaw is well formed, but the incisive alveoli have a strong inclination forwards.

Taking together the high temporal ridges, the union of the temporals with the frontals, the projection of the jaws, the narrow and retreating forehead, the small capacity, and the form and proportions of the nasal opening, the general resemblance of the skull to that of an ape is most striking and seems to justify Vogt's expression of "man-ape," it being understood that the skull we are describing is not of a natural but an anomalous formation.

II. HARTT COLLECTION.

Sixty specimens of objects made chiefly by the modern Indians of Brazil have been received from Prof. Hartt and are a part of the collection described in the last annual report. They consist of bows, different kinds of arrows used in catching fish and turtles, spears for capturing the great "Pirarucu" (*Sudis gigas*), stems used in making the shafts of arrows, two specimens of the zarabatana or blow-gun and two quivers for poisoned arrows all from the upper Amazons. There are earthen vessels of various forms and sizes from Santarem and Itaituba, earthen lamps of ancient pattern, a series of cups in the form of birds painted in colors, and a collection of dishes made of the calabash. A lip ornament made of quartz, remarkable for the neatness of the work, resembles that noticed in the last report. It is cylindrical, four and one-half inches long, a half inch in diameter, and is enlarged at one end in the form of a button, a little more than an inch in diameter, and at the other has a cross bar an inch long. Besides the above are specimens of copal, of a resin used in glazing earthen vessels, earth and fragments of bones from an Indian burial vase, etc.

III. OTHER ADDITIONS TO THE COLLECTIONS.

Gifts have been received from the following sources:—Rev. B. F. Decosta, two stone pestles and a stone gouge from the Island of Grand Menan, also a stone chisel and a collection of arrow heads from other sources.

PROF. EDWARD DESOR, of Neuchatel, a very beautifully wrought

and polished stone chisel, found nearly opposite St. Louis at Monk Mound in Illinois.

HENRY GILLMAN, Esq., a collection of human bones and stone implements, obtained by Mr. Gillman from an Indian mound at the head of the St. Clair River, Michigan, a pair of silver plated bracelets worn by an Indian chief at Lake Superior, human bones and fragments of pottery from a mound on River Rouge, Michigan, pieces of matting and braid made by Indians on Eagle River, Lake Superior; also pieces of inner bark of the white cedar used by the same for various domestic purposes.

SMITHSONIAN INSTITUTION, human bones from Sarasota Bay, Florida. These are remarkable for their weight; a thigh bone weighs 492 grams, while a recent bone of the same length, but somewhat stouter, weighed 353 grams. The increase of weight is due to the infiltration of the bones with an oxide of iron.

DR. GEORGE A. OTIS, U. S. Army, two photographs of Indian vases from Camp McDowell, Arizona.

DR. JOSIAH CURTIS, a hat made of hide and worn by Pagawitte, an Indian chief in Idaho.

BOSTON SOCIETY OF NATURAL HISTORY, a hat worn by the natives of Amboyna; a grotesque figure of an animal carved in wood, probably from the North West Coast; three stone pestles, a small stone mortar, and a stone sinker made by N. American Indians, "a sinker for catching squid" from the Pacific Islands, a painted earthen vase from Central America, a musical instrument made of reeds resembling a Chinese "mouth organ," an apron made of slender strips of leather attached to a girdle and ornamented with beads.

A valuable collection of human remains and of stone implements, from East Tennessee, made by Mr. Crandall under the direction of Prof. N. S. Shaler has been received.

IV. HUMAN REMAINS IN THE SHELL HEAPS OF THE ST. JOHN'S RIVER, EAST FLORIDA. CANNIBALISM.

After repeated examinations of the more important shell heaps on the St. John's, we have failed to find any evidence that they were used for the burial of the dead, or for any other purpose than dwelling places. Human bones have, however, been discovered in them, from time to time, under peculiar circumstances,

and as their presence opens a question of much interest, it will be desirable to describe in detail each of the instances in which they have been detected, especially where the bones have been found in considerable numbers.

1. The first which came under the notice of the writer, was at Old Enterprise, on Lake Monroe, in 1861, a few rods above the high bluff and near the shore of the lake. The deposit of shells where the bones were found, is about four feet thick, and has been much washed away by the waves during the great storms. While making an excavation near the roots of a large palmetto tree which had been partially uncovered by the action of the water, human bones were found about two feet below the surface. A foot above them, where a fire had been made, were ashes and large pieces of oak charcoal. The bones were not burned, however, and did not appear to have been connected with the fire in any way. They were broken into pieces a few inches long, just as was the case with the bones of the deer from the same deposit, or from the adjoining bluff, and like them had lost their organic matter, were incrustated with lime, and had become cemented together, so as in all respects to have the appearance of the same age as the bones of the animals associated with them.

The fragments consisted of the head of a femur broken off just below the lesser trochanter, two fragments of the shaft of this bone one fragment each of the shaft of the tibia, fibula and humerus, a part of a scapula, including the glenoid portion, two metatarsal bones, and one phalanx of a thumb. It is quite probable that there were originally a larger number of pieces and that many had been carried away by the action of the water in its encroachments on the shore.

Two important and more complete discoveries were made in the neighborhood of Blue Spring, though the localities were somewhat over two miles apart.

2. One of these was on the left bank of the creek through which the spring discharges, and about thirty feet from its union with the river. The bones were found about two feet below the surface, embedded in the shells, and represented a large part of the bones of the skeleton. They were nearly all more or less broken, and were scattered about without any definite order. Many fragments of the skull, however, were found near together. Besides the pieces of the cranium, there were fragments of the

following bones: viz., the lower jaw, right and left clavicle, right humerus, right and left scapula, ulna of both sides, right radius, right and left femur, right tibia, the two patellæ, upper end of the sternum, one fragment of pelvis, many fragments of ribs and a few bones of hands and feet. The humerus, radius and tibia of the left side were not found.

3. The other collection is from a low oval mound, in the swamp or meadow, two miles in a northerly direction from Blue Spring. Here, again, portions of many parts of the skeleton were present. Notwithstanding careful search beyond the limits where the bones were discovered, not a single piece of the head was found. Of eleven vertebræ found, all except one (the fifth lumbar), had their arches detached, as if for removing the spinal cord. The right innominate bone was broken into four pieces; of the left only one large, including the acetabulum, and a few small pieces remained. The right femur was broken into three and the left into five pieces; the left radius and left ulna each into three pieces, the left humerus into two, and the head of it was missing. All the bones of the right arm and right leg below the knee were missing. There were many fragments of ribs. The different pieces were scattered about over a surface of four or five square yards and promiscuously mingled. The bones had not been previously disturbed.

Near these remains were found some fragments of a large earthen vessel, apparently capable of holding several gallons, and varying from a half to three-quarters of an inch in thickness. The bones had lost all their organic matter, and when struck against each other have a decided ring.

4. A small collection of human bones was found in a shell field a few hundred feet south of the mouth of the creek at Blue Spring, and near the river. They consisted of fragments of the humerus, tibia, lower jaw, scapula and ulna, broken in the same manner as those just described, and also bones of the hands and feet. As the field in which they were discovered had been ploughed; it is uncertain to what extent the breaking of them may have been accidental. The appearances were the same as in the bones already described. There were no signs of a burial place.

5. Many fragments of an imperfect human skeleton were found in the mound on Huntoon Island, and near Huntoon creek. They were covered with shells to the depth of eighteen inches, and

though the place was completely explored, only the following were discovered; viz., fragments of a skull, an imperfect lower jaw, pieces of the right and left thigh bones, a piece of an upper arm bone, some fragments of the forearm and leg, and a few joints of fingers and toes. The bones were all of a diminutive size, evidently those of a dwarf. Basing an estimate on the proportions of the thigh bones to the whole skeleton, the individual is supposed to have been about three feet and a half high. The angles and articular processes of the lower jaw were broken off and the molar teeth had nearly all disappeared during life, and their alveoli had been absorbed. These facts indicate an individual which was, at the least, adult. Forty feet from the place where these bones were found, a large tree had been overturned, and among the shells carried up by the roots, was found a human ankle bone (an astragalus), but a careful search brought to light nothing else, in this direction, belonging to man.

6. A single fragment of a human upper jaw of the right side, was found in the large shell heap on the same island and near the river buried to the depth of six or seven feet, and could have been deposited there only at the time the mound was built. An upper arm bone, whole, parts of the lower jaw, and a few fragments of other bones, were discovered in the débris at the base of the same mound where it had been undermined, but the precise place from which they had fallen is uncertain.

7. In the remnant of a mound, three-quarters of a mile below Hawkinsville and on the left bank, human bones were found, about a foot deep, in a layer of shells not more than two feet thick. They appeared to be of the same age as the shells in which they were imbedded, and were all broken, and much scattered, a proof that they had not been buried. A second deposit was found twenty-five feet from the preceding, the bones were somewhat incrustated with lime, and were more decomposed. There were from the first locality seven fragments of cranium, two of the left humerus, two of the left clavicle, one of the right ulna, one fragment each of the right and left tibia and several small pieces of other bones. The shore where both these sets were found had been undermined and it is probable that many pieces had been washed away.

8. Excavations made on the side of Bartram's Mound near the river, and where it had been undermined, brought to light numer-

ous pieces of human bones all belonging to one skeleton. There were eighteen fragments of cranium, the right half of the lower jaw, the teeth of which had nearly all been lost and their alveoli absorbed, and thirty fragments of other bones including those of a femur, humerus, radius, tibia, fibula, and a patella. All of these appeared to have been covered for a long time, had lost nearly all their organic matter and were incrustated with a thin layer of calcareous deposit. It is quite likely that here too some of the bones originally deposited had been washed away by the river, as the mound at this point had been largely destroyed. In several instances the cranial bones were broken into small fragments and were irregularly cemented together by the deposit of lime.

9. A large block of consolidated shells split from the front of Osceola Mound left exposed a portion of a human skull. In detaching this, other bones were brought to view and excavations were continued until no further traces could be discovered. The chief part of the bones were removed in a mass of conglomerate and subsequently exposed by chiselling away the matrix, but from which they have not been wholly detached. The organic matter has entirely disappeared and the matrix adheres so firmly to the bones, that it is very difficult to separate it without at the same time breaking off pieces of bony structure.

Of all the human remains we have met with in the shell mounds these last are the most interesting, both on account of their greater age and of their being almost the only ones which can, with any certainty, be referred to the earliest period of the mounds. Osceola mound is one of the series in which pottery is not found, and its materials, as well as the mound as a whole, have undergone great changes.

There are certainly bones from two individuals, mingled. Two thigh bones, which are mates, lie side by side, but in reversed positions, the upper part of one corresponding with the lower of the other. The articular portions are gone. Parts of at least two others were found, one of which was removed nearly whole. Of the other there are two cylindrical portions, one 55 and the other 90^{mm} long. The exposed ends of the shorter one show the interesting fact that the bone had been artificially divided, by cutting a groove around the circumference of the bone and thus weakening it and then breaking the remainder. This is a common method of

dividing bones used by Indians. The broken surface and the marks of the cutting instrument are quite obvious. In the longer piece these marks are present but less distinct. As further evidence of the presence of bones from two individuals, may be mentioned the lower ends of two upper arm bones, both from the right side and of different sizes, and both cemented together. There are three tibiae, two of which are decidedly flattened and belonged to the same individual, the third having more nearly the triangular section, but only slightly flattened.

Besides the above there are fragments of a scapula, pelvis, humerus, radius, tibia, ribs, tarsal and carpal bones and phalanges. There are but few pieces of ribs, and but a single vertebra has been recognized.

The different bones were artificially broken in a few cases only, and contrasted very strongly in this respect with those previously noticed.

We have met with but a single other instance where human bones have shown signs of having been wrought by the aborigines. This was in the coast shell heap at Ipswich, Massachusetts, where Mr. Eliot Cabot discovered a human upper arm bone, which, as shown by the lines and marks on the surface had been ground or scraped. The nature of this instrument found is uncertain, as the end has been broken off. It is preserved in the Peabody Museum.

10. At Huntton Island, and in the rear of the shell mound on the St. John's, are two conical mounds, and are supposed to be burial mounds, one fifteen and the other twenty-five feet high. Excavations carried to the depth of six feet, but arrested at this depth on account of our inability to get the necessary labor, did not, however, reveal any evidence of burial in either of them. A collection of human bones was obtained from the top of the larger of them at the depth of about a foot below the surface, which in all respects correspond with those previously described. They were scattered over an area of several square yards and belonged to a young individual as shown by the size of the bones and the condition of the epiphyses. Each of the long bones was broken into two or more, and the skull into many, fragments. Pieces were found from all the principal divisions of the skeleton. There can be no doubt that the bones were intentionally broken, as the upper ends of two humeri show precisely similar marks of violence. In each case the bone is broken off an inch below the head, by an

instrument which crushed the bone, the fragments of which, flattened down, are retained in opposition, not having been originally completely separated. The bones are all incrustated with a calcareous deposit, which in some cases cements the fragments, and others the smaller bones, as of the hands, together. Their condition is similar to that of the bones from Bartram's Mound already described.

The above are the chief instances of the presence of human remains in the shell mounds which have fallen under our notice. They are not supposed to be the only ones which existed, for they were all but one chance discoveries. In all but a single instance there was nothing to direct attention to one place rather than another in making excavations, and as these were begun at random it is all but certain that many others escaped detection.

It would perhaps be going too far to say that the presence of human bones, under the circumstances above described, amounted to absolute proof of cannibalism. The testimony of eye-witnesses would be the only sure evidence of it. There is, however, nothing with regard to them which is inconsistent with this practice, nor does any other explanation occur to us which accounts for their presence so well.*

If there were any eye-witnesses of cannibalism among the Europeans who explored Florida in the earliest days of its history, they have left no records of the fact. In later times Jonathan Dickenson, a Pennsylvania quaker, who was wrecked on the coast near St. Lucia in 1699, in the narrative of his sufferings, calls the inhabitants cannibals, but nowhere saw human flesh eaten by them. The most direct statement he makes is as follows: "at this town about a twelve month before a parcel of Dutch men were killed, who having been cast away on the Bohemia (Bahama) Shoals, they, in a flatt which they built, escaped hither and were

* A statement by Le Moyne would at first sight seem to suggest another explanation. The natives when first seen by the French had the habit of dismembering the bodies of their slain enemies and carrying off the scalps and limbs as trophies. Plate XVI represents a celebration in which these are hung up on stakes and around which a ceremony is going on. While such a custom might account for the presence of human bones in the shell heaps, it would not for the fragmentary condition in which these are found, nor for the systematic manner in which all the bones of the limbs, as well as of the other parts of the skeleton, are broken up. In addition it may be stated that for reasons we have given elsewhere there is some doubt whether the Indians who built the shell mounds were the same as those found when the Europeans arrived in Florida, and consequently a practice prevailing among the latter might not exist among the former.

devoured by these cannibals, as we understand by the Spaniards."* I am indebted to Dr. C. F. Winslow for a statement in the records of Nantucket that Capt. Christopher Hussey "was cast away on the Florida coast and devoured by cannibals." This event was also in the latter part of the seventeenth century.†

The reasons derived from our own observations for believing that the ancient inhabitants of the St. John's were cannibals may be stated as follows :

1. The bones, an account of which has just been given, were not deposited there at an ordinary burial of a dead body. In this case after the decay of the flesh there would have remained a certain order in the position of the parts of the skeleton, especially in the pelvis, the long bones of the limbs, the vertebral column and the head. The bones would be entire as in other burials. In the cases here described, they were, on the contrary, scattered in a disorderly manner, broken into many fragments, and often some important portions were missing, as the head at one of the mounds near Blue Spring, the bones of an arm and leg at the other, and in other mounds a still larger number of bones. The fractures as well as the disorder in which the bones were found evidently existed at the time they were covered up, as is shown by the condition of the broken ends, which had the same discoloration as the natural surfaces.

2. The bones were broken as in the case of those of edible animals, as the deer, alligator, etc. This would be necessary to reduce the parts to a size corresponding with the vessels in which they were cooked, or suitable for roasting, or even for eating raw.

3. The breaking up of the bones had a certain amount of method ; the heads of the humerus and femur were detached as if to avoid the trouble, or from ignorance as to the way, of disarticulating the joints. The shafts of these bones, as also those of the forearm and leg, were regularly broken through the middle. The olecranon process of the ulna, was in some cases detached in the same manner as the corresponding part has been found to be in the deer.

4. There is no evidence that the bones were broken up while lying exposed upon the ground by wild animals, as the

* God's Protecting Providence, Man's direct Help and Defence, etc., p. 60, 8vo. London, 1700.

† See doings of the Nantucket Historico-genealogical Society, in Nantucket Inquirer and Mirror. Nov. 22, 1873.

wolves and bears. If they were thus broken one might reasonably expect to find the marks of teeth, but after a careful examination of hundreds of pieces they have not been seen in a single instance. As a general rule dogs, and the same is true of wolves, gnaw chiefly the ends of the bones, which are of a soft and spongy texture, leaving the shaft, which is solid and unyielding almost intact, or at any rate to the last. This is the case even with the bones of birds, which are so much smaller. In the bones from the mounds the spongy ends show no marks of teeth and are well preserved though detached from the shaft.

The conclusion we have given is strengthened by the fact that cannibalism prevailed largely in both North and South America, and that the natives of America were led to it by the same motives as were those of other parts of the world. In general this practice may be said to commend itself to the savage mind from the following considerations :—

With some it was a matter of choice, depending upon a liking for human flesh as an article of food, as with the Fijians, who had not even the excuse growing out of a scarcity, for food of all kinds existed with them in greatest abundance. With others, and these are by far the most numerous, it was practised as an act of vengeance or triumph over a fallen foe, and with still others it may be said to have been of the nature of a superstitious rite or ceremony, as with the ancient Mexicans, the Miamis, and others. To the above should be added the pressure of extreme hunger, which drives both savage and civilized man to this terrible alternative.

Of starvation nothing need be said, except that it is not improbable that the idea of eating human flesh as ordinary food, may, perhaps, have had its origin in eating it as a necessity. Once tasted and found to be good, as all cannibals aver that it is, under the influence of savage instincts and passions, the conversion of an enemy's flesh into meat to eat, would be very natural.

Of course the above motives, excluding the last, may be more or less combined, and a savage by eating his enemy may get his revenge and satisfy his appetite at the same time. Or, as with the New Zealander, who loves human flesh as a choice food, and who also eats it under the superstitious belief that he thus not only incorporates the body of his enemy with his own, but absorbs also his enemy's soul, so that ever after the two are one. To the victors this had an especial significance, for believing in a future

state and the presence of his enemy there, if he eats him in this life he makes sure of it that there will be no trouble with him hereafter, for he possesses him body and soul already.

In the cannibalism as practised in the two Americas, one recognizes the same motives and tendencies and often combined with them, in addition, a degree of cruelty to their victims unsurpassed in other parts of the world.

The degraded and brutal inhabitants of Tierra del Fuego, in their fearful struggle for existence, with the elements on the one hand, and savage foes and scarcity of food on the other, would seem to be almost naturally led to the practice of eating human flesh. Capt. Fitzroy has given a sad picture of these poor, wretched creatures, living on the very verge of regions just capable of sustaining life. They habitually eat their prisoners of war, and in severe winters, when snow and ice cut off their usual supply of food, the old women are sacrificed without hesitation. Having choked and smothered them over a dense smoke, they eat them to the last scrap. The life of the dog, however, is spared under these circumstances, as he can render efficient aid in hunting, which the old women cannot.*

Of the prevalence of cannibalism in Guiana, there is evidence from various sources. The histories printed by De Bry† are full of particulars of the manner in which the bodies of victims are prepared, cooked and eaten. Pizarro and his companions in their first but fruitless attempts to reach Peru from Panama, came suddenly upon an Indian village, when the inhabitants instantly fled leaving human flesh cooking before the fire.‡ We have the authority of Humboldt for its existence on the Orinoco at the time he travelled there.§ Brett found what he was undoubtedly correct in considering the remains of a cannibal feast in an ancient shell heap.|| The Mexicans practised cannibalism on a most extensive scale on certain occasions. A prisoner was delivered to the warrior who had taken him in battle, and by him after being dressed was served at an entertainment of his friends. "This," says Prescott, "was not the coarse repast of famished cannibals,

* Voyage of Adventure and Beagle. Vol. ii, pp. 183 and 189.

† See De Bry's narratives—Brazil, Voyage of Joannes Stadius, Hesus, pp. 71, 81, 89, 126 and 127; also voyage of Joannes Lerus, Burgundus, p. 213.

‡ Prescott, History of the Conquest of Peru. London, Bentley, 1854. p. 96.

§ Personal Narrative, Bohn's edition, Vol. ii, pp. 354, 411-415.

|| Rev. J. G. Wood. Uncivilized Races in All Countries of the World. London, 1870. Vol. ii, p. 602.

but a banquet teeming with delicious beverages and delicate viands, prepared with art and attended by both sexes, who conducted themselves with all the decorum of civilized life."*

There were other kinds of victims. As is well known, human sacrifices formed a very important part of the religion of the ancient Mexicans. Their war god was constantly honored with them, and the companions of Cortez saw large piles of the skulls of those who had been sacrificed. On such occasions, after the heart had been cut with an obsidian knife from the living victim, it was offered to the sun and then to the god; the body was thrown down the teocalli and afterwards divided and eaten. The native allies of the Spaniards, in the siege of Mexico, ate the bodies of their dead enemy.† In the city of Mexico itself, as the siege was prolonged and food became scarce, the number of victims first sacrificed to propitiate the god of war in hope of relief, then served out as food to the starving people, was very large. These sacrifices were often made in the sight of the Spaniards, who sometimes recognized the lighter skin of their countrymen as they wound their way up to the sacrificial stone to be in turn distributed as food among the besieged.‡

Of all the American cannibals the Caribs undoubtedly had a stronger love for human flesh than any others, and not only ate their enemies taken in battle as a matter of revenge as well as gratification, but, like the Fijians, even fattened their prisoners for the cook-house that they might make better and more palatable food.§ It was also practised among the Iroquois, Algonquins, Mamis and Kickapoos;|| it existed in Louisiana,¶ Illinois, and on the northwest coast. The most precise narratives we have of this practice are, however, to be found among the 'relations' of the Jesuits who were often eye-witnesses of the feasts of human flesh held by the Iroquois and Algonquin tribes.

One shudders with horror at the prolonged tortures which preceded death and the feast among these savage people. Every device cruelty could suggest was practised. Long before death, sometimes days, torture began. Burning brands were applied to

* Prescott, *History Conquest Mexico*. Philadelphia, 1874. Vol. I, p. 81.

† *Ibid.*, Vol. III, p. 132.

‡ *Ibid.*, p. 151.

§ Peter Martyr. *Decade* I, L. I., folio 2, A.

|| See notes of Hon. Lewis Cass to Ontwa the son of the Forest, a poem by Henry Whiting. New York, 1822, p. 129.

¶ Father Hennepin. *Description de la Louisiane*, Paris, 1683. pp. 65, 68, 69.

the naked skin, nails were bitten from the fingers, and flesh from the limbs, gashes were cut in the arms and legs and hot brands thrust into them; the scalp was stripped from the head and live coals and hot ashes poured upon the bleeding surface. Women and children joined in these fiendish atrocities, and when at length the victim yielded up his life, his heart, if he were brave, was ripped from his body, cut in pieces, broiled, and given to the young men under the belief that it would increase their courage; they drank his blood, thinking it would make them more wary, and finally his body was divided limb from limb, roasted or thrown into the seething pot, and hands and feet, arms and legs, head and trunk, were all stewed into a horrid mess, and eaten amidst yells, songs and dances.*

Much more might be added but enough has been said for our purpose, viz: to show that cannibalism being so common in other parts of America, there would be no improbability of its existence in Florida. We have entered more into details than we otherwise should because the subject of American cannibalism has not received the attention it deserves. Mr. Francis Parkman is almost the only one who has taken the trouble to call attention to the documentary evidence which exists bearing upon it, and I am largely indebted to his writings and to himself personally for references to original statements.

*For a justification of this picture of savagery the reader is referred to La Potherie, *Hist. de l'Amerique*. Paris, 1722, p. 23. Relation de of Barthelemy de Vimout, 1642 p. 46. Relation of Jean Brebeuf, July 1636, p. 121. Relation of Francois Joseph Le Mercier. June 1637, p. 118. Relation of Vimout, 1644, p. 41.

REPORT OF THE TREASURER.

*To the Trustees of the Peabody Museum of American Archaeology and
Ethnology in connection with Harvard University :*

The Treasurer respectfully presents his Seventh Annual Report in the following abstract of accounts, and the cash account hereto annexed :—

The Collection Account is charged with

| | |
|---|--------------|
| 9 Massachusetts Five per cent. Coast Defence Specie Notes, due July 1, 1883, each \$5,000, numbers 46 to 54, registered, the gift of George Peabody, Esq. | \$ 45,000 00 |
| Income from above Notes in currency | 2,534 07 |
| Income from 9 Five per cent. Massachusetts Coast Defence Specie Notes of Professor Fund | 2,534 06 |
| Income from Treasurer's Investments | 496 30 |
| Dividend on failed Insurance Policy | 14 78 |
| Balance of Worcester & Nashua Railroad Co. of Note \$2,462 98 Jan. 2, 1873, Interest seven per cent. | 1,082 11 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 1, 1873, Interest seven per cent. | 2,717 97 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 3, 1873, Interest seven per cent. | 2,517 17 |
| | \$ 56,896 46 |

And Collection Account is credited with

| | |
|--|--------------|
| 9 Massachusetts Five per cent. Coast Defence Specie Notes, as above. | \$ 45,000 00 |
| Worcester and Nashua Railroad Co.'s Note, July 5, 1873, Interest seven per cent. | 5,000 35 |
| Worcester Note, Jan. 1, 1874, Interest seven per cent. | 3,000 00 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 3, 1874, Interest seven per cent. | 1,991 77 |
| Rent of Museum Hall from Harvard College | 750 00 |
| Salary of Prof. J. Wyman as Curator | 500 00 |
| Excavations in Michigan | 88 50 |
| Incidental expenses | 420 75 |
| Payment to Treasurer for balance of last account | 195 09 |
| | \$ 56,896 46 |

The Professor Fund consists of

| | |
|---|--------------|
| 9 Massachusetts Five per cent. specie Notes, as above, each \$5,000, numbers 55 to 63 registered, the gift of George Peabody, Esq., of which the Income is appropriated to Collection Fund, until the Professorship is filled | \$ 45,000 00 |
|---|--------------|

The Building Fund is charged with

| | |
|---|-------------------|
| 12 Massachusetts Five per cent. Specie Notes, as above, numbers 64 to 75 registered | \$ 60,000 00 |
| Income of above Notes in currency | 3,378 75 |
| Income of Investments by Treasurer | 1,779 03 |
| 9 Worcester Water Bonds, due June 1, 1877, Interest six per cent. | 4,500 00 |
| 3 Worcester Sewer Bonds, due June 15, 1877, Interest six per cent. | 2,100 00 |
| 6 Worcester & Nashua Railroad Co.'s Bonds Five-ten of Dec. 31, 1870. Interest six per cent. | 6,000 00 |
| Worcester Note July 4, 1871, Interest 7 per cent. | 2,168 08 |
| Worcester Note, July 4, 1871, Interest seven per cent. | 2,752 28 |
| Worcester & Nashua Railroad Co.'s Note, July 2, 1872, Interest Seven per cent. | 2,433 85 |
| Worcester & Nashua Railroad Co.'s Note, Aug. 6, 1872, Interest Six per cent. | 2,370 32 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 2, 1873, Interest Seven per cent. | 2,600 70 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 3, 1873, Interest Seven per cent. | 1,888 13 |
| Worcester & Nashua Railroad Co.'s Note, Jan. 4, 1873, Interest Six per cent. | 198 00 |
| | <hr/> \$92,169 14 |

And Building Fund is credited with

| | |
|--|-------------------|
| 12 Massachusetts Five per cent., Specie Notes as above | \$ 60,000 00 |
| 9 Worcester Water Bonds, due June 1, 1877, Six per cent. Interest S. A. | 4,500 00 |
| 3 Worcester Sewer Bonds due June 15, 1877, Six per cent. Interest S. A. | 2,100 00 |
| 6 Worcester & Nashua Railroad Co.'s 5-10's and Seven per cent. Bonds of Dec. 31, 1870. S. A. | 6,000 00 |
| 11 Worcester & Nashua Railroad Co.'s 20 yr. Seven per cent. Bonds of April 1, 1873, S. A. | 11,000 00 |
| Worcester Note, Jan. 1, 1874, Interest Seven per cent., S. A. | 8,000 00 |
| Worcester & Nashua Railroad Co.'s Note Jan. 5, 1874, Interest Seven per cent., S. A. | 550 86 |
| Payment of accrued Interest on Bond bought Jan. 3, 1873, | 18 28 |
| | <hr/> \$92,169 14 |

The Investments of the

| | |
|------------------------------------|--------------------|
| Collection Fund, at par, amount to | \$ 54,992 13 |
| Professors Fund, at par | 45,000 00 |
| Building Fund, at par | 92,169 14 |
| | <hr/> \$192,161 26 |

STEPHEN SALISBURY, *Treasurer.*

Jan. 15, 1874.

Dr.

STEPHEN SALISBURY, *Treasurer of the Peabody Museum of American Archaeology*
1873. *For Collection Fund.*

| | | | | |
|-------|-----|---|-----------|----------|
| Feb. | 1. | To rec'd in part of Worcester and Nashua Railroad Co.'s Note for \$2,462 98, Jan. 2, 1872, | \$ 975 09 | |
| July | 5. | To rec'd in part of Worcester and Nashua Railroad Co.'s Note for \$2,717 97, Jan. 1, 1873, | \$ 576 00 | |
| July | 5. | To rec'd balance of principal of Worcester & Nashua Railroad Co.'s Note for \$2,717 97, Jan. 1, 1873, | 2,141 97 | |
| July | 5. | To rec'd Int. on above Note 6 m. 4 days at 7 $\frac{1}{2}$ ct. $\frac{1}{2}$ an. | 97 24 | 2,815 21 |
| July | 5. | To rec'd balance of Principal of Worcester and Nashua Railroad Co.'s Note \$2,462 98, Jan. 2, 1872. | 107 02 | |
| July | 5. | To rec'd Int. on above from July 2, '72, at 7 $\frac{1}{2}$ ct. $\frac{1}{2}$ an. | 47 87 | 154 89 |
| July | 3. | To rec'd 6 Months' Interest on Mass. Five per cent. Notes to 1st inst. in Gold, | 1,125 00 | |
| July | 3. | To rec'd for sale of above \$1,125 00 Gold at 15 per ct., | 168 75 | |
| July | 3. | To rec'd 6 Months' Interest on Mass. Five per cent. Notes of Professor Fund to 1st inst. Gold, | 1,125 00 | |
| July | 3. | To rec'd for sale of above \$1,125 00 Gold at 15 per ct. | 168 75 | 2,587 50 |
| July | 5. | To rec'd Principal of Worcester and Nashua Railroad Co.'s Note, Jan. 3, 1873, | 2,517 17 | |
| July | 5. | To rec'd Int., on above, 6 mos. 2 days at 7 per cent., | 89 08 | 2,606 25 |
| Dec. | 20. | To rec'd Dividend on Failed Policy from Firemen's Insurance Company, | | 14 78 |
| 1874. | | | | |
| Jan. | 1. | To rec'd for Principal of Worcester Note July 5, 1873, | 2,587 50 | |
| Jan. | 1. | To rec'd Interest on above 6 mos. less 2 days, | 89 05 | 2,676 55 |
| Jan. | 2. | To rec'd 6 Months' Interest on Mass. Five per cent. Notes to 1st inst. in Gold, | 1,125 00 | |
| Jan. | 2. | To rec'd for sale of above \$1,125 00 Gold at 10 $\frac{1}{2}$ per ct., | 115 32 | |
| Jan. | 2. | To rec'd 6 Months' Interest on Mass. Five per cent. Notes of Professor Fund to 1st inst. in Gold, | 1,125 00 | |
| Jan. | 2. | To rec'd for sale of above \$1,125 00 Gold at 10 $\frac{1}{2}$ per ct., | 115 31 | 2,480 63 |
| Jan. | 3. | To rec'd Interest on Worcester and Nashua Railroad Co.'s Note for \$5,000 35 July 5, 1873, to date, | | 173 06 |

For Building Fund.

| | | | | |
|------------------------|-----|--|----------|-------------|
| 1873. | | | | |
| June | 27. | To rec'd 6 Mos.' Coupons on Worcester Water Bonds to 1st inst., | 135 00 | |
| June | 27. | To rec'd 6 Mos.' Coupons on Worcester Sewer Bonds to 15th inst., | 63 00 | 198 00 |
| July | 3. | To rec'd 6 Mos.' Int. on Mass. Five per cent. Notes to 1st inst. Gold, | 1,500 00 | |
| July | 5. | To rec'd on Sale of above \$1,500 00 Gold at 15 per ct., | 225 00 | 1,725 00 |
| July | 5. | To rec'd for Worcester Note, July 4, 1872, \$2,752 28, Interest 7 per cent. \$99 00, | 2,851 28 | |
| July | 5. | To rec'd for Worcester Note, July 4, 1872, \$2,168 08, Int. 7 per cent., \$77 85, | 2,246 06 | 5,097 34 |
| Amount carried forward | | | | \$21,504 30 |

Cr.

etc., in connection with Harvard University in Annual Cash Account, Jan. 13, 1874.
1873.

| | | |
|-----------|--|----------|
| Jan. 15. | By balance of Account due to Treasurer, | 195 09 |
| Jan. 30. | By paid Harvard College one year's Rent of Museum Hall, | 750 00 |
| Feb. 1. | By paid Rent of Safe Deposit to Feb. 1, 1874, | 30 00 |
| March 7. | By paid Mercantile Marine Ins. Co. for Policy \$5,000 for one year in Collection, | 37 50 |
| May 3. | By paid Henry Gillman for Excavations in Michigan, | 38 50 |
| June 6. | By paid Prof. Wyman one year's Salary as Curator to Jan. 1, 1873, | 500 00 |
| | | <hr/> |
| July 5. | By paid for Worcester Note on demand Int. 7 per ct. | 576 00 |
| July 5. | By paid for Worcester and Nashua R. R. Co.'s Note on demand Interest 7 per cent. | 2,587 50 |
| | | <hr/> |
| Aug. 1. | By paid John P. Wild on account of Curtain Fixtures | 5,000 35 |
| Aug. 1. | By paid Thomas Morley for Distemping Tablets, | 75 00 |
| Sept. 24. | By paid F. W. Putnam and Co. for printing Report, | 10 00 |
| | | <hr/> |
| Dec. 18. | By paid Mercantile Marine Ins. Co. for Policy, \$5000, five years on Collection, | 118 25 |
| | | <hr/> |
| | | 203 25 |
| | | <hr/> |
| | | 150 00 |
| | | <hr/> |
| 1874. | | |
| Jan. 1. | By paid for Worcester Note on demand, Int. 7 per ct. | 3,000 00 |
| Jan. 3. | By paid for Worcester and Nashua Railroad Co.'s Note on demand, Interest 7 per cent. | 1,991 77 |

Amount carried forward,

\$14,483 96

Dr.

| | | Amount brought forward, | \$21,504 30 |
|-------|-----|--|-------------|
| July | 5. | To rec'd for Worcester and Nashua Railroad Co.'s Note, July 2, 1872, \$2,433 85, Int. 7 per cent. \$88 59. | 2,520 44 |
| July | 5. | To rec'd for Worcester and Nashua Railroad Co.'s Note, Aug. 6, 1872, \$2,370 32, Int. 6 per cent. \$129 97 | 2,500 29 |
| July | 5. | To rec'd for Worcester and Nashua Railroad Co.'s Note, Jan. 2, 1873, \$2,600 70, Int. 7 per cent. \$92 53, | 2,693 23 |
| July | 5. | To rec'd for Worcester and Nashua Railroad Co.'s Note, Jan. 3, 1873, \$1,888 13, Int. 7 per cent. \$66 51, | 1,954 94 |
| July | 5. | To rec'd for Worcester and Nashua Railroad Co.'s Note, Jan. 4, 1873, \$198 00, Int. 6 per cent. \$5 97, | 203 97 |
| July | 5. | To rec'd 6 Mos.' Coupons on Worcester and Nashua Railroad Co.'s Bonds to 1st, | 210 00 |
| Oct. | 4. | To rec'd 6 Mos.' Coupons on Worcester and Nashua Railroad Co.'s 20 yr. Bonds accrued to July 5, . | 186 67 |
| Oct. | 4. | To rec'd 6 Mos.' Coupons on Worcester and Nashua Railroad Co.'s 20 yrs.' Bonds balance to 1st inst., | 163 33 |
| Dec. | 20. | To rec'd 6 Mos.' Coupons on Worcester Water Bonds to 1st inst., | 135 00 |
| Dec. | 20. | To rec'd 6 Mos.' Coupons on Worcester Sewer Bonds to 15th inst. | 63 00 |
| 1874. | | | 198 00 |
| Jan. | 1. | To rec'd for Worcester Note, July 5, 1873, \$6,892 34, Interest 7 per cent. \$234 80, | 7,057 14 |
| Jan. | 2. | To rec'd 6 Mos.' Coupons on Mass. Five per cent. Notes to 1st inst. Gold, | 1,500 00 |
| Jan. | 2. | To rec'd for sale of above \$1,500 00 Gold at 10½ per ct., | 153 75 |
| Jan. | 3. | To rec'd 6 Mos.' Coupons on Worcester and Nashua Railroad Co.'s Bonds to 1st, | 210 00 |
| Jan. | 3. | To rec'd for Worcester and Nashua Railroad Co.'s Note, Oct. 4, 1873, \$350 00, Int. 7 per cent. \$6 05, . | 356 05 |
| | | | 566 05 |

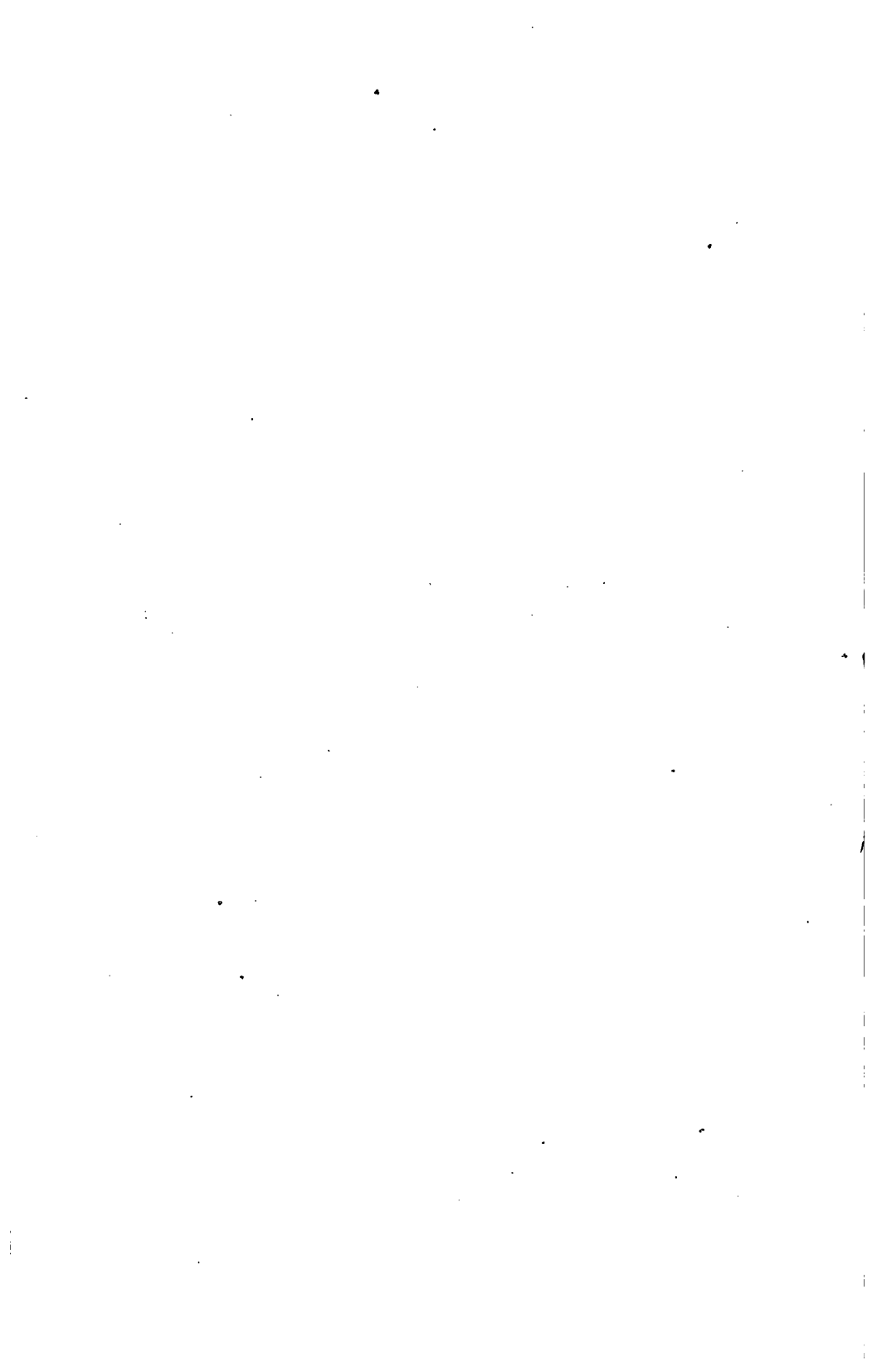
\$41,412 11

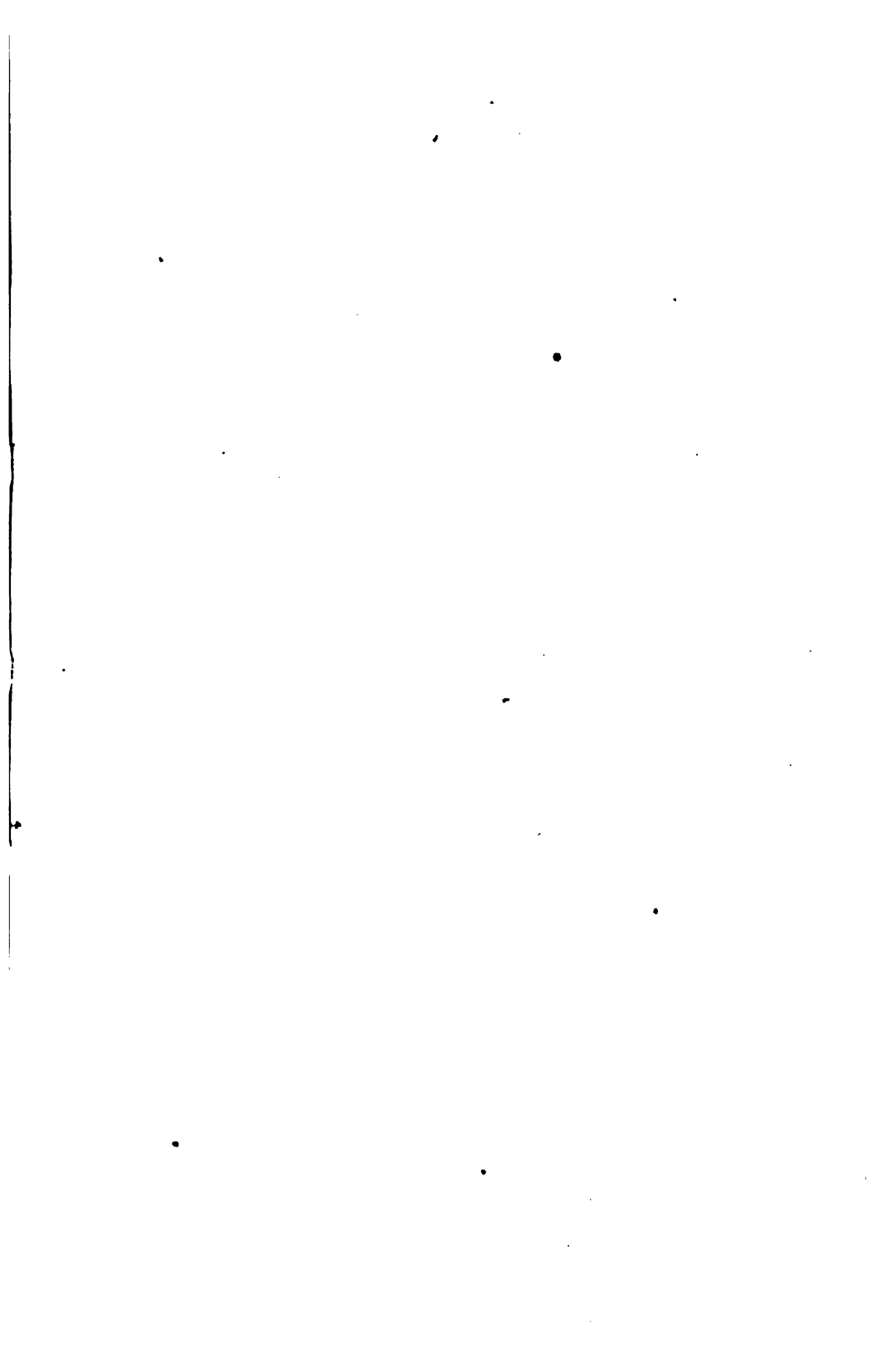
| Cr. | Amount brought forward, | \$14,483 96 |
|---------------------------|--|--------------------|
| <i>For Building Fund.</i> | | |
| 1873. | | |
| July 5. | By paid for Worcester Note on demand, Int. 7 per ct. | 6,822 34 |
| July 5. | By paid for Worcester and Nashua R. R. Co.'s Bond for 20 yrs. from April 1, 1873, 7 per cent. S. S. . . | 10,000 00 |
| July 5. | By paid accrued Interest on above from Apr. 1, 1873. | 188 67 |
| Oct. 4. | By paid for Worcester and Nashua Railroad Co.'s Note on demand, Int. 7 per cent. | 10,188 67 |
| 1874. | | |
| Jan. 1. | By paid for Worcester Note on demand, Int. 7 per ct. | 850 00 |
| Jan. 3. | By paid for Worcester and Nashua R. R. Co.'s 20 yrs. Bond at 7 per cent. Interest S. A. | 8,000 00 |
| Jan. 3. | By paid accrued Interest on above from Oct. 1, . . | 1,000 00 |
| Jan. 3. | By paid for Worcester and Nashua Railroad Co.'s Note on demand, Interest 7 per cent. | 18 28 |
| | | 550 86 |
| | | <u>1,569 14</u> |
| | | <u>\$41,412 11</u> |

WORCESTER, Jan. 13, 1874.

I have examined the securities and vouchers named in the above account, and find the statements to be correct, and the account to be accurate.

SAM'L F. HAVEN, Auditor.





EIGHTH ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, APRIL, 1875.

CAMBRIDGE.

PRINTED FOR THE TRUSTEES BY THE SALEM PRESS.

1875. .

**PRINTED AT THE SALEM PRESS,
SALEM, MASS.**

EIGHTH ANNUAL REPORT.

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archaeology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Eighth Annual Report, the Reports of their Curator and Treasurer for the year ending in January last.

ROBERT C. WINTHROP.
CHAS. FRANCIS ADAMS.
STEPHEN SALISBURY.
ASA GRAY.
THOMAS T. BOUVÉ.
HENRY WHEATLAND.
GEORGE PEABODY RUSSELL.

CAMBRIDGE,
April 28, 1875.

At a Meeting of the Trustees of the Peabody Museum of American Archæology and Ethnology, held on Thursday, September 10, 1874, the following resolutions, offered by Hon. Stephen Salisbury, were adopted :

RESOLVED, That the interests of this Peabody Museum, and our high respect and personal regard, prompt us to join in the lamentation of the friends of science in this country and in Europe, that Professor JEFFRIES WYMAN, M. D., died suddenly in Bethlehem, N. H., on September 4, 1874, at the age of sixty years and twenty-four days.

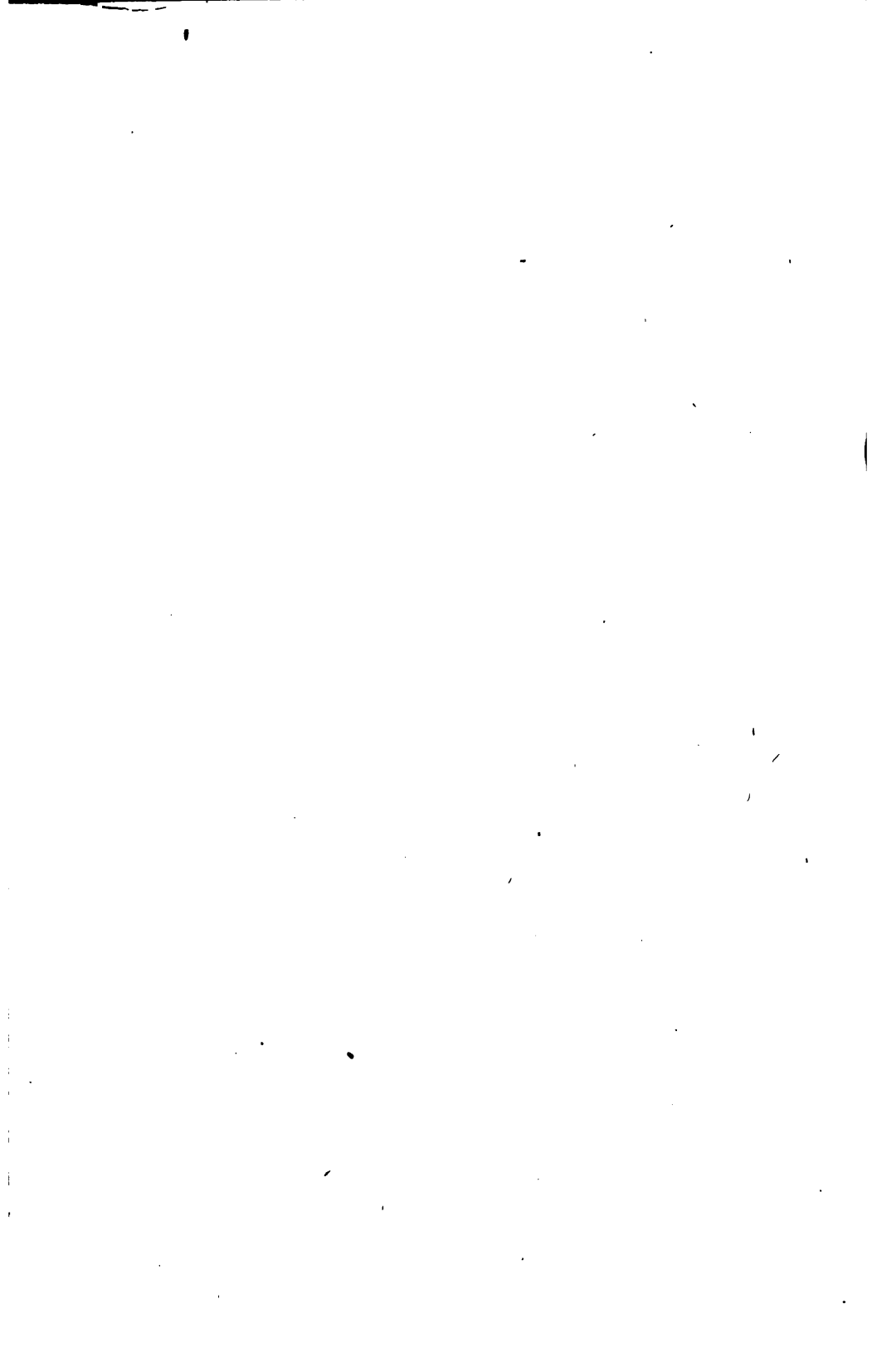
That we consider with deep and disheartening feelings, that natural science has so soon, again, within the walls of our University, suffered the loss of one of her most eminent servants, distinguished not less for his retiring disposition and quiet studies, than for his faithfulness, accuracy and high authority in the investigation of the physics that pertain to anatomical structure.

That the rare and extensive collections of this Museum derive much of their value from the arrangement and classification, which the unsurpassed knowledge and skill of Prof. Wyman in osteology and comparative anatomy enabled him to make.

That we call to mind the generous and unsparing labors and the discretion and good judgment, with which Prof. Wyman performed the duties of curator of this Museum, in obtaining appropriate and desirable objects, with a view to completeness and advantageous examination, and while we lament that we can no longer lean on his wisdom and strength in the execution of our trust, we shall remember with satisfaction the harmony and constant pleasure of his coöperation with us.

That we tender to the family of our Associate the assurance of our sympathy in their grief for the loss of one so worthy of public honor and gratitude and of private affection and confidence.

That a copy of these resolutions shall be presented to the family of Prof. Wyman by the Secretary.





Jefferson Wyman



REPORT OF THE CURATOR.

To the Trustees of the Peabody Museum of American Archæology and Ethnology.

As *pro tempore* Curator of the Peabody Museum of American Archæology and Ethnology, it becomes my duty to give some account of its present condition, and of the additions made to it during the past year,—in place of the Annual Report which our lamented late associate and curator would have prepared if his valuable life had been spared to us a few months longer.

At a meeting convened shortly after Professor Wyman's death, the Trustees placed upon record an expression of the irreparable loss which they and this establishment thereby sustained. Tributes to his memory have already been paid, and his contributions to science recounted, by his associates in other relations.¹ Still it seems proper to recapitulate here some biographical details, and to refer to the services he has rendered to this Museum, of which he may be justly said to have been the scientific founder.

JEFFRIES WYMAN, the third son of Dr. Rufus and Ann (Morill) Wyman, was born at Chelmsford, Middlesex Co., Massachusetts, on the 11th of August, 1814. He was named after Dr. Jeffries, of Boston, the distinguished physician under whom his father studied medicine. He received his education at Chelmsford Academy, at Phillips Exeter Academy, and at Harvard University. He took his A. B. degree in 1833; that of M. D. in 1837. His pre-

¹ The more considerable of these are:—

1. A memorial by Professor O. W. Holmes, in the *Atlantic Monthly* for November, 1874.

2. An article by Prof. Burt G. Wilder, in *Old and New*, of the same date.

3. Sketch of Dr. Jeffries Wyman, by Prof. Burt G. Wilder, with a portrait, in the *Popular Science Monthly*, for January, 1876.

4. Memorial Meeting of the Boston Society of Natural History, held Oct. 7, 1874; Address by Prof. Asa Gray, etc.

dilection for anatomy, physiology, and zoology developed early ; and when, in 1839, he accepted the curatorship of the Lowell Institute, he had probably made up his mind to attempt a scientific career. He prosecuted his studies in anatomy and physiology in Paris in 1841, but was obliged to return home much sooner than he expected, on account of the illness and death of his father. In 1843 he accepted the chair of Anatomy and Physiology in the medical department of Hampden-Sidney College, established at Richmond, Virginia ; but still resided in Boston and actively continued his scientific researches during the summer. In the year 1847, upon the retirement of Dr. John C. Warren and the division of the duties of his chair, Dr. Wyman was appointed Hersey Professor of Anatomy in Harvard University, and took charge of the instruction at Cambridge, teaching both human and comparative anatomy and physiology, as well to special as to college classes. To these duties, to the building up, by his own almost unaided hands, of an admirable, and for its size almost unrivalled, museum of comparative anatomy, and to a fruitful series of researches, published from time to time in the sixty or seventy papers or memoirs which he contributed to scientific journals and transactions, he devoted the ensuing twenty-five years of his quiet and industrious life,—until his failing strength, slowly undermined by pulmonary disease, would no longer allow him to lecture. But, with this exception, even the last two or three years of his life were hardly less busy or less productive than before.

For a view of the nature and character of his principal published contributions to science, it may suffice to refer to the several biographical notices, the titles of which I have already appended in a footnote. They also bear testimony to his rare gifts and graces as a teacher and as a man, and to the high rank which was accorded to him in the scientific world. They, moreover, render it unnecessary to enter into details of his life and work previous to the year in which we became associated as the trustees of this establishment. I merely record that, in December, 1850, he married Adeline Wheelwright, whom he had the sadness to lose in June, 1855 ; that in August, 1861, he married Anna Williams Whitney, and was again bereaved by her sudden death, after childbirth, in February, 1864. His first wife bore him two daughters, the second an only son. All three survive to represent his honored name.

I here mention, also, merely as a part of the training and of the varied acquisition which so peculiarly fitted him to become the organizer of this museum, his special predilection for osteological investigations, and for those which relate to questions of race in man and the higher brute animals; his fondness for ethnological observation, to which he paid subsidiary but marked attention in the extensive scientific journeys and explorations that he made,—such as those to the coast of Labrador and the interior of Florida; to Surinam, where, penetrating well into the interior, he examined with curious interest a community of Africans who, escaping from bondage, had relapsed into complete barbarism; and finally in his journey across extra-tropical South America from La Plata to Chili and Peru. His skill and readiness in delineation were also most serviceable. He did not pretend to artistic effect; but his drawings, like his writings, were clear, simple, exactly truth-telling, and therefore effective. And finally his quickness and accuracy of observation, like his sobriety and sureness of judgment, seemed to be intuitive.

It was, accordingly, as natural as it was fortunate that when Mr. Peabody, under the advice of a relative himself distinguished in a similar department of science, gave his proposed benefaction to Harvard University the direction which he did, Professor Wyman was from the first especially looked to, and was named as a trustee of the foundation. Indeed, while it is certain that without Professor Wyman the Museum could not be what it now is, there is reason to believe that but for him it might not have been at all.

Mr. Peabody's "letter of gift" and "instrument of trust" are dated October 8, 1866; a meeting of the Board of Trustees was convened shortly afterwards. Professor Wyman was appointed Curator of the contemplated museum, and his first annual report, made in January, 1868, begins thus:—

"On the 9th of November, 1866, a collection of various objects pertaining to the purposes of this Museum was begun, and temporarily deposited in one of the cases of the Museum of Comparative Anatomy, in Boylston Hall. The collection consisted of crania and bones of North American Indians, a few casts of crania of other races, several kinds of stone implements, and a few articles of pottery, in all about 50 specimens."

The latest entries in the catalogue bring the numbers up to about 8000.

Ripe and ready for this work Professor Wyman gave himself to it, almost exclusively, for the remainder of his life. In the arrangement, mounting, and care of this, as of his own anatomical museum, almost everything has been done by his own unaided hands. Even last summer, when there was evidently no strength to spare, and a considerable amount of ancient Indian pottery had almost to be reconstructed from the separated fragments, when besought to call in skilled assistance, he replied that he would first see what he could do by himself. His investigations and personal explorations deserve larger mention than can here be made; but the principal results are incorporated into his seven annual reports, and in a memoir the printing of which commenced just before his death and is not yet completed.

This class of work Professor Wyman had, indeed, begun before the Museum was founded. Constrained to pass successive winters in Florida for the benefit of his health, he had already explored to some extent the mounds and shellheaps which there abound. In the winter of 1866-7 he entered upon a systematic investigation of them. In the following summer he joined a company of Essex County naturalists in the exploration of the shellheaps of our northern New England coast. The results are recapitulated in his first report. His seventh and last report, scientifically the most considerable of the series, after some account of our extensive collection of ancient Peruvian crania, and of some interesting pottery, gives a summary of the decisive evidence which he had obtained from the Florida shellheaps of a systematic cannibalism, upon which he also throws light by adducing the historical evidence of its comparatively recent prevalence among the Caribs, and even among the Iroquois, Algonquins and other North American Indians.

Instead of visiting Florida, one winter, that of 1869-70, was passed in Europe, when he took occasion to examine all the archæological museums within his reach. It was hoped that his failing strength might be recruited. But the climate and the life of Southern Europe were no substitute for Florida, from which he always returned in spring sensibly invigorated. The usual transient amelioration seemed to have been gained there last winter; and the researches which he was able to carry on, were productive. But he is said to have declared that this visit would be the last. On his return to Cambridge he carried the seventh annual

report through the press, arranged and catalogued the recent considerable accessions to the Museum, completed his elaborate paper upon shellheaps, etc., for the Memoirs of the Peabody Academy of Science at Salem, and put in order his ample collections which illustrate it. Then, late in August, he repaired to Bethlehem, New Hampshire, seeking in this mountainous district, as was his wont, to avoid the autumnal catarrh, from which in the lower country he suffered severely. There, at evening, on the fourth of September, almost without warning, a sudden hemorrhage of the lungs brought this worthy and honored life to a close.

The loss is widely and deeply felt. In this Board and to this establishment, it is felt to be irreparable. We cannot expect in our day to have again the benefit of such fulness and variety of requisite knowledge, such sureness and ripeness of judgment, such complete and disinterested devotion, nor to enjoy the charm of a character so remarkable for its sweetness and strength, its perfect balance and simple dignity.

As respects the care of the Museum during the short period in which I have endeavored to act as temporary curator, while I have given to it such attention as I could, it was soon evident that the lack of time and of the requisite technical knowledge would prevent me from personally carrying on the work which had to be done. I therefore availed myself of the permission granted at a former meeting of the Board, and engaged the valuable assistance of Mr. F. W. Putnam, of Salem, who is better acquainted than any one else with the Museum, and with Dr. Wyman's method and arrangements, having been much associated with him both in exploration and publication.

Under my general direction Mr. Putnam has unpacked and arranged the recent considerable accessions to the Museum, brought up the entries in the catalogue, and put the working-rooms in order. I herewith submit and adopt the report which he has addressed to me, detailing the additions to the Museum during the past year. A considerable portion of this report is devoted to an account of some explorations made by himself in Kentucky last autumn. A large part of it is occupied with a detailed account of the collection made by Professor Swallow and recently purchased for the Museum. It is illustrated by a series of woodcuts, engraved under Professor Swallow's direction and bought with the collection.

As Mr. Porter C. Bliss, late secretary of the U. S. legation in Mexico, last summer informed our Treasurer that he was about to forward from New York a valuable Mexican collection obtained for our Museum, acquired by funds placed in his hands for the purpose at his own urgent request, I naturally expected that I might be able to acknowledge the due reception of this acquisition; but up to this time nothing whatever has been received, not even a response to repeated enquiries.

ASA GRAY, *Curator pro tem.*

To Professor Asa Gray, Curator pro tempore of the Peabody Museum of American Ethnology and Archæology.

DEAR SIR:—Agreeably to your request, I herewith submit a brief Report on the additions to the Museum since the last Report of the Curator, with remarks on the work done since the death of our lamented friend, the late Curator of the Museum.

On making an examination I found that Professor Wyman's latest work at the Museum had been more particularly confined to three special collections.

First. The important collection of ancient Peruvian pottery, presented by the late Professor Agassiz, was undergoing examination and repair. Many of the vases and jars in this collection were in fragments when received, but Professor Wyman had most skilfully restored them, and was evidently only waiting to finish his descriptions of the most remarkable objects, before placing them in the exhibition room in a case which he had left vacant for the purpose. This collection has now been placed as contemplated by Professor Wyman. On handling these specimens of the fictile art of the ancient Peruvians, it was observed that many of them were more or less covered with a saline crystallization, of recent formation, and that the clay of which the vessels were made was gradually crumbling, thus slowly but surely destroying these valuable relics. From several indications I think that Professor Wyman had already begun experiments to check this destruction,

and, as far as possible, I have followed up the clew, and have covered several of the vases with a thin coating of shellac in order to prevent the peeling off of the painted ornaments. The sudden changes of temperature and the dampness to which the articles were subjected in the lower rooms, evidently had much to do with their disintegration. It will probably be found necessary to have many of the ancient vases, jars and dishes, now in the collection, carefully saturated with some very thin and penetrating cement or glue.

Second. The Swallow collection, purchased last summer, had been unpacked by Professor Wyman, and much labor had been bestowed in repairing the many broken vases and earthen dishes. The restored and most perfect specimens had been placed in one of the cases of the Museum, while the other articles, many of which will require further labor before they can be exhibited, were placed in drawers under the case.

Both the Agassiz and Swallow collections had been entered in detail in the general catalogue, and a large number of the Peruvian specimens will be found described and figured in the descriptive catalogue in which Professor Wyman had, from time to time entered, accounts of the most important and interesting articles received at the Museum.

Third. The very large and most valuable collection made by Professor Wyman in Florida, during his several trips there, was evidently undergoing final revision in connection with his Memoir on the "Fresh Water Shellheaps of Florida." The manuscript of this work and all the drawings had been completed a short time before Professor Wyman's decease, and the first pages of the proof had passed through his hands.

This collection had not been catalogued, and, with the exception of a small selection principally made to show the fact of cannibalism among the people who formed the heaps, has never been on exhibition. I think you will pardon me for making the suggestion that, as soon as the Memoir by Professor Wyman is printed, the collection itself should be carefully arranged in accordance with the subject as there treated and placed on exhibition, in justice to one who was ever so ready to make prominent in the Museum the researches of others.

An examination of the catalogues of the Museum shows that,

with the exception of his own collections made in Florida and a few other special lots, nearly all the articles received by the Museum have been entered in the general catalogue, and a very large number have been specially described, and illustrated by careful drawings, in the entries in the descriptive catalogue.

All the articles received during the year (with the exception of his last Florida lot), up to the time of his leaving Cambridge in the summer, were entered in the catalogue by Professor Wyman, the last entry being under number 7899, an average of nearly one thousand entries a year since the Museum was begun on November 9, 1866.

ADDITIONS TO THE MUSEUM, 1874.

Collection of articles from the Florida shellheaps (not yet entered in catalogue).—From Professor JEFFRIES WYMAN.

7460—7474. Eighteen stone implements, probably from Ohio.—From MUSEUM OF COMPARATIVE ZOOLOGY.

7475—7572. Three hundred and seventy-eight stone implements collected in the western states by Mr. G. W. Morse.—By PURCHASE.

Professor Wyman made the following memoranda relating to this collection.

“The *grooved axes* are more triangular, the cutting edge being more pointed and the groove more nicely wrought than in those found at the east.

“The *pestles* are of the pattern of a muller, short and conical.

“The *spherical stones* are of several patterns, one is grooved and has been wrought on one side; others have the surfaces more or less ground into points, and others appear to have been used as hammers. They closely resemble stone implements from the Danish collections. Vary from $1\frac{1}{4}$ to 3 inches in diameter.

“The *chisels* are of many shapes and sizes. The chief ones are either quadrangular, flattened, with the angles somewhat rounded and sides either square or rounded; or triangular, with the sides rounded: $2\frac{1}{2}$ to 6 inches in length. Many of them resemble the patterns of the prehistoric periods of Europe.

"Stones with two or four concavities on the surface resemble implements not uncommon in the Danish collections.

"A large, oval, and somewhat flattened stone, measuring 10x9x5 inches, has a shallow concavity on each side about 4 inches in diameter, and on one side in addition two small pits, one an inch and the other 1½ inches in diameter. These are known in the West as 'anvils,' but their real use does not appear to have been determined. A similar one from E. Tenn."

7573. Small stone chisel from Barbados, presented to Professor Agassiz by Governor Rawson.—From MUSEUM OF COMPARATIVE ZOOLOGY.

7574. Skull of a Botocudo from Brazil.—From Exploration, Professor C. F. HARTT.

7575. Knife made of shark's teeth from King's Mills Islands.—From HARVARD COLLEGE.

7576-7578. Three stone implements from Pigeon River, E. Tenn., collected by Mr. A. R. Crandall.—From MUSEUM OF COMPARATIVE ZOOLOGY.

7579-7581. Perforated shell disks and shell beads, from Big Mound, St. Louis, Mo., collected by Mr. W. De Hass.—From MUSEUM OF COMPARATIVE ZOOLOGY.

7582-7583. Seal-skin dress and pair of snow shoes, from Alaska.—From Miss K. P. LORING.

7584-7587. Four stone implements from Massachusetts and Maine.—From Col. THEODORE LYMAN.

7588-7606. Medicine drum, rattle, wampum, pipes, tobacco-pouch, fire-pouch, and an arrow, used by the Sioux, Chippewas and other tribes; seeds and other articles used for food by the Dakota, Nez Perce, Navajo, and Tonkowa Indians. Photograph of arrow-head embedded in a human vertebra. These articles were collected by officers of the U. S. Army.—From ARMY MEDICAL MUSEUM.

7607-7613. Photographs of Indian crania found in Iowa and Illinois.—From DAVENPORT ACADEMY NATURAL SCIENCES.

7614. Cast of the Mexican Zodiac.—From SMITHSONIAN INSTITUTION.

7615-7619. Shell chisel and pottery from Florida, Georgia and Tennessee.—From Count L. F. POURTALES.

7620-7621. Photographs of stone idols from Georgia and Tennessee.—From Dr. J. CURTIS.

7622. Photographs of "Hairy Men."—From Professor ASA GRAY.

7623. Photograph of Dr. Clement of St. Aubin, Switzerland.—From BARON DE BUREN.

7624. Photograph of the Blackmore Museum, Salisbury, England.—From Mr. W. BLACKMORE.

7625-7629. Photographs of Zulus, Siamese Twins, and a two-headed negress.—From Professor J. WYMAN.

7630-7636. Photographs of various Indian implements from Oregon and California.—From Professor J. D. WHITNEY.

7637-7638. Cast of the "Ophir Mine Skull," Nevada, and photographs of the same.—From Professor J. D. WHITNEY.

7639. Skull of a Californian Indian.—From Professor J. D. WHITNEY.

7640-7682. A collection of various implements and articles used by the Sioux Indians, collected by Mr. A. W. Turner.—By PURCHASE.

7683. Perforated stone implement from Magnolia, Florida.—From COLONEL BABBIT.

7684-7710. A collection of twenty-two specimens of seeds and fruit used as food by the Pai-Utes of the Colorado River, collected by Major J. W. Powell.—From SMITHSONIAN INSTITUTION.

7711. Arrowheads from Marietta, Georgia.—From Mrs. F. P. WEBBER.

7712. Human skull, showing a cut, from an Indian mound, Magnolia, Florida.—From Professor J. WYMAN.

7713-7714. Silver bracelet and a stone arrowhead from East Africa.—From EDWARD W. HOOPER.

7715-7875. A collection of earthen dishes and vases, a number of stone and bone implements and miscellaneous articles from mounds near New Madrid, Missouri, and several stone implements from various localities in that state, collected by Professor G. C. Swallow.—By PURCHASE.

This is an important collection, particularly rich in articles of pottery and stone of the moundbuilders, and as a number of woodcuts representing many of the most interesting of the articles were received with the collection, they are here inserted

together with the following abstract from the manuscript by Professor Swallow.

"We opened these mounds in December, 1856, and the following month. There were present, assisting with their servants and teams, Messrs. S. R. Phillips, John Martin, M.D., Clayton Lee, John Jackson, M. Jackson, Elijah Horrel, Dr. Case, Daniel Fulton, A. E. Sheelds of New Madrid, Missouri, and Geo. Northcutt of Columbia and some others.

We cut a passage six feet wide entirely through the "Big Mound" from side to side and from top to bottom, laying open its entire structure.

This mound is in Lewis' Prairie, west of New Madrid. It is elliptical in form, 900 feet in periphery at the base, 570 feet at the top which is nearly level and about 20 feet above the surrounding country. This is the wide bottom of New Madrid county some 60 miles long and 30 to 40 wide, and is known as the swamp country. This was the country effected by the New Madrid earthquake of 1811.

A room seems to have been built by putting up poles (like rafters in the roof of a house); on these rafters were placed split cane (*Arundinaria macrosperma*); plaster, made of the marls of the bluff formation, was then applied above and below so as to form a solid mass, inclosing the rafters and lathing of cane, and this held all in place; over this room was built the earth work of the mound, so that when it was completed the room was in its centre. The earth work was then coated with the plaster, and over all nature formed a soil.

This mud plastering was left rough on the outside of the room, but smooth on the inside which was painted with red ochre. (One of the pots found had been used as a paint pot).

Some of the plastering was burned hard as brick, but other parts were only sun dried, as shown by the pieces sent.

Some of the rafters and cane lathes were found decayed, some burned to coal and others all rotted but the bark. Some of the rafters were, probably, of cypress, and others, of elm. This inner plastering was found flat on the floor of the room as it had fallen in, and under it were the bones and pots, the latter including one that contained a human skull, which we found at one side. This vessel was first hit by the point of the plow. It was bottom up, and not broken nor even cracked when I took it out of its

resting place, the skull within was not broken and could not be taken out without breaking it or the pot, a fact which attracted much comment at the time. I remember one remark of Mr. Phillips.—“The pot was made over the person's head as a punishment.” The pot² and skull were afterwards broken by an accident to the box in which it was packed.

All the articles in this mound were well preserved as the plastering protected them from the elements.”

The character of the articles found in the “Big Mound” mentioned in the foregoing account by Prof. Swallow, will be understood from the following short descriptions and accompanying illustrations. The woodcuts, though rather roughly executed, are generally quite characteristic of the articles represented. The numbers used in the descriptions and to designate the figures are those under which the articles are entered in the Museum Catalogue.

The clay in some of the vessels has been mixed with more or less finely pounded shells, probably of fresh water muscles. In other instances the pounded shell has not been used, but fragments of charcoal are to be traced, indicating that either charcoal itself was used to temper the clay, or else, which is more likely, that some vegetable substance was mixed with the clay, which, in burning the vessels, was reduced to charcoal. In a few of the specimens sand was mixed with the clay, and in several, the clay was apparently without any mixture. These last are generally thick and rude in their finish, while those in which charcoal is now seen are generally the thinnest and among the more finely finished vessels, as in No. 7800.

Many of the vessels from these Missouri mounds show evidence of having been heated both on the inside and outside; but several appear not to have been so heated, and these are not so finely and smoothly finished as those which have been hardened by fire.

The best finished of these vessels have the appearance, noticed by Squier and Davis in other specimens from the mounds, of having been carefully shaved by a sharp knife on the outside. The same appearance is observable in the dark, Peruvian pottery. It is possible that this was produced by making the clay on the outside of

²This vessel is represented as Fig. 7761; a small portion of it is missing from near the bottom, and a few fragments of a human cranium and the vertebra of a *deer* are now in it. Prof. Swallow has made mention of this skull in the Proceedings of the Amer. Assoc. Adv. Sci., xxii, B, 401.—F. W. P.

the vessels very wet and then hastily smoothing it just before it was baked. The unburnt specimens do not have this peculiar, smooth surface.

No. 7776. A jar surmounted by the figure of a woman sitting upon her feet, represented by the two lower protuberances, as seen in the figure giving the back view. The upper of the three pro-

No. 7776.



jections shown in the figure represents the curve of the back, and the front view shows the hands resting on the knees. This jar is 7·7 inches high, and 5·8 inches in greatest diameter. The bulging part has a nearly even diameter varying but ·2 of an inch. The jar is slightly flattened at its base so as to stand without tipping. The opening at the back of the head is one inch in transverse diameter by ·8 vertical.

No. 7775. This very odd vase or jar is made in the form of a woman represented in the same squatting position as that surmounting jar No. 7776. The jar is perfect, though, from the clay being less finely tempered than in the preceding, the features are not so strongly defined. Each ear is perforated by a small hole, and the pointed portion on top of the head probably indicates a different style of head dress from that of 7776. The back is represented as very much protruded, the breasts are large and well

formed. The dimensions of the vase are as follows: total height 4·6 inches; from knee to end of foot 2·5; from breasts to point of back 2·5; from shoulder to shoulder 2·4; diameter of opening in the back of the head from ·6 to ·7 of an inch. The very great

No. 7775.



resemblance of this figure to a small Mexican idol in the Museum (No. 1469) is very striking. The idol is carved in stone and represents a woman in this same squatting posture with her hands upon her knees. See also the figure of a man in this same posture in Foster's *Prehistoric Races of the United States*, p. 240. This last represents a water jar of the same general character as 7775 and is also from a mound in Missouri. (See p. 55 of this Report.)

No. 7841. A large pipe carved from a hard sandstone and rudely representing a frog or a toad. The design is better seen

No. 7841.



from a side view than from the front as represented by the woodcut. The block of stone composing this pipe bowl weighs 3 pounds and 9 ounces, and is 5·5 inches in length, 3·7 in width and 3·9 in height. The head of the toad, or the part projecting from the front of the block, is 1·5 inches, the width of its mouth is 1·7, and the distance from the outside of one eye to the other is 1·2 inches. The diameters of the bowl of the pipe and of the hole for the stem are each 1·3 inches, and the two holes are equal in depth, 2 inches. The holes rapidly narrow as they extend inwards, being but ·2 of an inch in diameter at their union. The hole for the stem is symmetrical throughout, but

that of the bowl is slanting on its front and nearly vertical on its posterior portion.

No. 7761. This is the vessel which Prof. Swallow states was found "near the side of the mound, bottom up and containing a human skull and one vertebra." It is rather rudely made and is

No. 7761.



not so smooth on its surface as the figure represents. There is very little mixture of other substances with the clay of which it is composed. A small portion broken out near the bottom shows it to be about $\frac{1}{4}$ of an inch thick, and also that the pot has been hardened by fire, both on the inside and the outside. As shown in the cut, it is provided with four handles symmetrically placed. It is 5 inches high, 6.3 to 6.5 in its greatest diameter and 4.6 to 4.8 inches across the mouth.

No. 7773.



Nos. 7773 and 7764 are two pots very similar to the one last described. The largest of these, No. 7773, is 6 inches high, and

from 7·7 to 8 inches in diameter. The opening is 5·8 to 6·3 in diameter. The other is much thicker, and is about 5 inches high, by 6·8 in diameter.

Nos. 7820 and 7824, represented in the cuts of about one-quarter

No. 7820.



No. 7824.



their natural size, are probably handles broken from vases similar to those taken from another mound and figured on page 40, as No. 7717.

No. 7842 is probably a natural flint concretion that has been slightly worked over to form a small dish. Its shape is best seen by tipping the engraving over to the right. Its length is 4·4, width 3, and height 1·5 inches.

No. 7842.



No. 7843 is a small discoidal stone of diorite, quite smooth and polished.

No. 7843.

It is slightly concave on its upper surface, with flat bottom and vertical sides, and is 1·2 inches in diameter by ·5 of an inch in thickness.



No. 7838. A double concave disk of sienite, 2·8 inches in diameter by 1·1 in thickness. The concavities are not over ·2 of an inch in their greatest depth. The sides of the stone are rounded.

No. 7838.



No. 7839 is another of these stones of the same shape, except that the sides are a little more rounded. This stone is slightly polished, perhaps by use.

It is of the same thickness as the first mentioned but is ·6 of an inch less in diameter. With these is another discoidal stone, No. 7840, having a thickness through its centre of 1·4 and a diameter of 2·9 inches, but double convex in shape and made of a gray sandstone.

These discoidal stones of various forms and sizes are very interesting relics, and as we know that such stones were used in games by the American Indians, especially by the Southern tribes and by the Mandans as described by Adair, Finly, Bartram, Catlin, and others, it is very probable that these stones wherever

found were used for similar purposes. Messrs. Squier and Davis, in "Ancient Monuments of the Miss. Valley," figure a number found in mounds and on the surface, and call attention to their enigmatical character and to the fact that they have been found from Ohio to Peru, and also in Denmark. So far as their observations go, they regard those found in the mounds as, probably, of more recent origin than the mounds, but those found by Prof. Swallow in the "Big mound" are evidently of the same age as the other articles in the collection, and the very large number from the Mounds in Tennessee, collected by Mr. Dunning and now in the museum, would indicate that they belong to the mound period as well as to later times. It is interesting in this connection to record two of these stones found in Hartford, Connecticut, by the Rev. E. C. Bolles, and now in the Peabody Academy of Science at Salem, and also to refer to the specimens in the Museum from the Hawaiian Islands, one of which, No. 2903, is labelled "Stone used in the *game of maika*, Hawaiian Islands." The game played with such stones by the Mandans is called "Tchung-kee," which Adair gives as "Chungke." From these names and the term "Chunky-yard," used by Bartram in his description of the peculiar enclosure in the Creek villages in which the game was played, these stones are now generally called "Chunky-stones," but it is questionable if this name should be given to any except those of large size which are perforated, as the game described by Catlin requires a "ring of stone" so that if the pole is well thrown the ring will fall upon one of the projecting points on the pole. That those not perforated may also have been used for some other game is probable from the fact that the stones used by the Hawaiians in their game of "maika" are, to judge from the several specimens in the museum, simple biconcave and biconvex disks, in every respect like those found in America. It is also very probable that some of the smaller stones of this character were used as paint rubbers, for it is evident that some such articles were required if paint were used.

Nos. 7873 and 7874 are two articles carved from a hard clay slate and carefully smoothed. Their use is problematical, but they so closely resemble lip ornaments as to suggest that they were such. The largest measures 1·2 inches in length by ·7 across the top; the other is ·9 of an inch in length by ·6 in greatest diameter.

No. 7874.

No. 7873.



No. 7875 is a needle made of the point of a deer's antler. The larger end has been perforated by a small hole and is broken at this point. The woodcut does not give a very good idea of the

No. 7875.



specimen which is 3·3 inches long and ·5 of an inch in diameter at its large end. A similar needle, made of a deer's horn, was found by Stevens with a skeleton in an ancient burial place in Yucatan, and he states that the Indians of that country still use the same kind of needles. There is also an awl, 4·5 inches in length, which probably came from the Big mound, though it is not specially mentioned by Prof. Swallow. This awl is like those figured by Squier and Davis from mounds in Ohio, and is made from a bone of a deer.

Nos. 7858, 7864 and 7865 are several masses of clay used as plaster on the chamber of the mound as described by Prof. Swallow, and several of the pieces show the impressions of the reeds over which the clay was spread. No. 7866 is a rough ball of burnt

No. 7866.



clay about 3·5 inches in diameter, and shows the impression of the skin and finger marks of the hands that moulded it. This mass was perforated through the centre as shown in the figure giving a section.

No. 7855 is a large hoe, beautifully chipped from a piece of brown flint. It is 11·3 inches in length, 5·1 in greatest width, and 1·1 in thickness through the centre. One of the surfaces is nearly flat and is much polished by wear on its lower third, while the opposite surface is slightly convex and only polished by wear along its lower edges.

No. 7834 is a polished celt of greenstone, worked in the form of a broad chisel. Its flat surface represented in the figure is 2·4 inches in greatest width and 4·7 from the rounded upper end to

the beginning of the bevelled edge, which is $\cdot 9$ of an inch deep. The cutting edge is made by the grinding down of this side only.

No. 7852.



No. 7855.



No. 7834.



The opposite surface is flat along its central portion but the sides are rounded. The thickness of the stone is one inch.

No. 7852. This is a beautiful, little chisel of orange flint, polished on its two broad surfaces but with its sides left roughly chipped. The greatest width of the implement is across its cutting edge, which is made by grinding from both surfaces. Length 3·5, thickness $\cdot 7$, width 1·4 inches.

Nos. 7853 and 7854 are two chipped flint chisels, long and nar-

No. 7853.



No. 7854.



row, and polished only at the cutting portion. The cutting edge is made by grinding from both surfaces. The cuts do not accurately represent these implements, which are chipped nearly flat on one surface and roughly convex on the opposite. They are of the same general shape, though of considerable difference in size.

The largest, which is made of a gray flint, is 7·6 inches in length, 1·5 in width across the centre and ·7 along the edge. The other is of a much lighter colored flint, and is 5 inches in length, ·7 of an inch in thickness, 1·1 in width, and has a cutting edge of ·6 of an inch.

There are also a number of other stone implements in the collection, some of which probably came from the mounds, and others were found on the surface. They are all from Missouri, and are as follows. Three thin triangular implements, No. 7844, about 4 inches in length, 3 in width and from ·4 to ·5 in thickness. These three implements would be classed either as small hatchets or skin scrapers. No. 7845 is a spear head, 3·9 long by 1·8 wide. No. 7846 is a finely chipped knife, 4·9 long by 1·5 wide. This implement would generally be classed as a spear head, but its finely chipped edges and long delicate shape rather indicate its having been mounted in a short handle for use as a knife³. No. 7847 is probably another knife, of the general shape of the preceding, but smaller, and having two notches probably to aid in securing it to the handle. This knife is 3·6 long by 1·4 of an inch wide. No. 7848 includes four arrowpoints of common form and size. No. 7849 is probably a small spearpoint 3 inches in total length by 1·5 in width. No. 7850 is a short and broad arrowhead, with long wings or barbs and obtusely pointed. This is 1·7 in total length by 2·5 in width across the barbs. No. 7851 is a boring tool, 2·5 inches long by about ·3 to ·4 of an inch in diameter, with a short but, about 1·2 inches wide. All the above mentioned implements are made from white or slightly yellow colored flint, and show perfection of workmanship.

There are seven stone axes of ordinary size; the smallest of these being 5 inches in length by 2·8 in width; the largest is 7·8 long by 4·8 inches in width. Nos. 7827, 7830 and 7831 are of sienite, and are grooved on three sides, the fourth side being squared. In 7827 the groove passes a little to the squared or handle-side, and this axe also has a more rounded cutting edge than the others. No. 7828, the largest of the lot, is of green stone and the lower part of the axe is more narrowed than in the others. No 7830 differs from the others in having a flat top, like the iron axe of the present time, and more nearly resembles

³ There are, in the Museum, several flint knives from Europe which are very similar to this implement from Missouri, Nos. 859 and 866, from Rügen, are very close indeed as regards material, size, shape and finish of workmanship.

it in its general shape than do the others. No. 7832 is an axe of sienite, but differs from the preceding in having the groove carried all round. It is 5·7 long by 3·4 wide and 2·2 in thickness. No. 7829 is a finely carved, grooved axe, made of clay slate. The top is flat and the surface, which came in contact with the handle, is slightly concave, and the groove, which is quite deep on the opposite side, fades out gradually as it approaches this side. The front of the axe is also slightly concave, and at the same time has a curved outline from its top to its cutting edge, which is short and rounded. This axe, which is beautiful from its perfect symmetry and finish, is 6 inches in length 3·5 in greatest width just below the groove, and 2·5 in thickness. The groove is from ·8 to ·9 of an inch in width. The cutting edge is 2·5 in length. No. 7833, which is specially marked as having been found on the surface in Boone Co., is of a very unusual shape and may possibly be an unfinished implement. It is of sienite, 7·1 inches long, 3·7 wide across its upper third, 2·4 along its cutting edge, its greatest thickness 2·5. The top of the axe is flat; sides bulging; front and back edges grooved and convex in outline, the front of the axe being the most arched.

Nos. 7835 and 7836 are two hatchet-shaped implements of sienite. They are partially polished, about 4 inches long and 2·5 wide, and of the usual form of these small, or hand celts, as they are often called.

No. 7861 is a small implement of sandstone, of about the size of the last, but more triangular and with a deep groove, as if for the ball of the thumb in holding the implement in the hand.

No. 7837 is a small block of mottled greenstone such as many articles of ornament are made of. This block is 2·8 inches by 3·3, and 1·2 in thickness through the middle. It has the general appearance of a block roughly put in shape for the final purpose of making a "gorget."

Nos. 7856, 7857, and 7859 are pieces of sandstone evidently used for sharpening implements. 7859 has a number of grooves occasioned by use.

No. 7763 is a portion of the shell of *Busycon* from a small mound in New Madrid Co.

I quote from Prof. Swallow's manuscript the following account of two other mounds opened by him, and from one of which the rest of the articles here described were obtained.

"A smaller mound, 418 feet east of the south end of the Big Mound, was examined. This mound was nearly circular, 360 feet in circumference, 14 feet high, 8 feet above the present surface of the country, as 6 feet of stratified sands and clays have been deposited on the bottom since the mound was formed. In this mound were found ashes, shells, charcoal, fragments of bones and pots. Nothing of any great value.

"In Township 23, Range 15 East and Sec. 26, and about 6 miles E. N. E. of New Madrid, we opened a small mound, from which we obtained all the articles sent which are not otherwise designated. It was overgrown with trees and had not been disturbed, save in a small place on one side. This mound was circular in form.

"The pots and jars were found in a circle near the circumference, or perhaps two-thirds of the distance from the centre of the mound to the outer edge, and on the original ground beneath the mound. We found the base of the mound, when the earth was carefully removed, discolored with dark stains on the earth in the shape of a human body, with head to the pot and the feet towards the centre of the mound; also, the position of the skeleton was marked by traces of whitish, calcareous earth. We also found some fragments of the enamel of teeth just within the line of the pots where the form of the head was shown. These bodies seemed to have been placed as closely together as possible, and a pot or jar at the head of each. So regularly were they arranged that we could find them by following up the circle after we had discovered the key. There seemed to be pots in no other position in the mound. All found were in this circle.

"It appeared as if the bodies had been placed in position, and the pots and jars in their places, and then the mound built over them. In the middle of the mound we found with the earth, ashes, coal, fragments of shells (*Unionidæ*) and broken pottery. I found one *Fusus* near one of the jars in the circle.

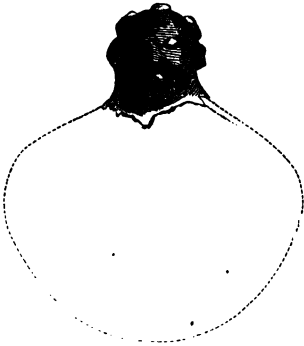
"Everything in this mound was greatly decomposed by time and the elements, save the pots and jars of the best quality. Other pots fell to pieces as soon as they were disturbed. They have become much firmer since they were taken out.

"The best pots are made of blue clay, fine sand, and pounded shells, which materials exist in the neighborhood."

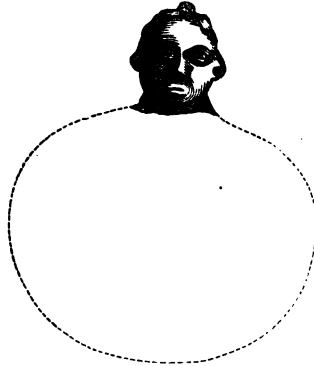
Nos. 7747, 7748, 7750, 7751 are figures of the human head in clay, and once surmounted jars like No. 7782, but of larger size. Prof. Swallow states that the jars were all broken, and the restorations,

indicated by outlines in the three woodcuts, are as correct as the fragments would permit. 7745 and 7748 are the two heads showing the most finished workmanship, and agree with 7747, and also with 7782, in having the hair or a head dress represented as an

No. 7747.

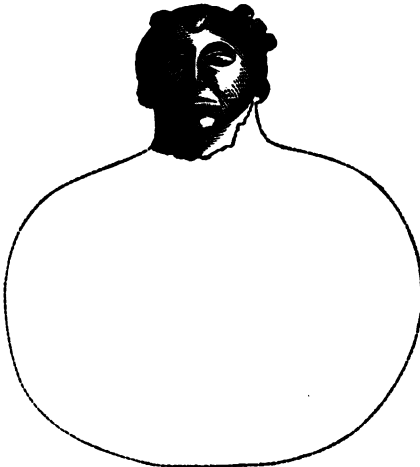


No. 7750.



ornamented band over the top of the head. 7782 and 7747 have this band represented after the same pattern, or with a central and two side projections or bunches. 7748 has a large bunch on the left side and a smaller and circular one on the right, while the

No. 7748.



centre of the band is brought over the forehead. In this head the ears are perforated, while in all the others they are not placed quite so low down and stand out prominently from the head. In 7750

the head dress represented is evidently of a more elaborate pattern than in any of the others, and looks as if the hair had been arranged in five folds of which the central one was much the largest. There is also a certain indescribable appearance to this head which gives the impression that it represents that of a man, while all the others have a feminine appearance. All the heads but 7747 have the eyes and mouth represented with distinct lids and lips, but in 7747 the bunch of clay forming the mouth has not been cut to show the lips, and that forming the left eye is also a simple round bunch placed in a depression representing the eye socket, while the bunch representing the right eye was omitted or has since fallen off. No. 7751 has the top of the head smooth, as if the individual represented had been without the usual head dress.

The following measurements will give the size and proportions of these faces.

| No. | Width of face, not including the projecting part of the ears, in inches. | Distance from top of head to chin, not including the projecting part of the head dress, in inches. | Distance from root of nose to the chin, in inches. |
|------|--|--|--|
| 7747 | 2 | 2.1 | 1.3 |
| 7748 | 2.15 | 2.2 | 1.5 |
| 7750 | 2.1 | 1.9 | 1.1 |
| 7751 | 2.4 | 2.4 | 1.6 |
| 7782 | 1.1 | 1.2 | 1.7 |

No. 7782 is a perfect jar with the head surmounting it and having the opening behind. This was

No. 7782.



evidently the smallest of the several jars of this character found in the mound, and is made of the blue clay, slightly mixed with sand, as are the majority of the articles of pottery found in this mound. The measurements of the face are given above. The body of the jar is spherical and with hardly any perceptible flattening below. The diameter at its largest part is from 4.5 to 4.6

inches, and the total height is 5.6 inches. The opening in the back of the head is about .8 of an inch in diameter.

The seven following cuts represent others of this very interest-

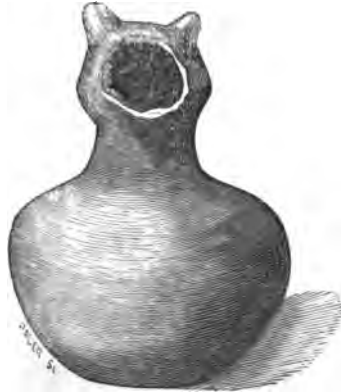
ing series of vessels with necks and heads and with the circular opening behind.

No. 7786 is 7·4 in diameter and 7·5 inches in total height.

No. 7786.



No. 7783.

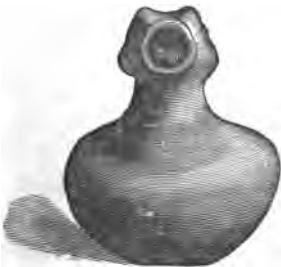


The width of the odd looking face, which may have been intended to represent that of an owl, is 2·3 inches; the "bill," or part between the eyes, projects half an inch. The apertures of these several jars are nearly of the same size, varying from about 1·3 to 1·7 inches in diameter.

No. 7783 was perhaps intended to represent some animal with projecting ears. The cuts show these ears and the opening in the back of the head. This jar is 6·1 inches in greatest diameter and 8·2 inches high.

The heads on Nos. 7781 and 7785 have the appearance of being

No. 7781.



No. 7785.



left in the first stages of the design that they were to exhibit. The larger of these jars is 7·5 inches in diameter by 8·5 in height. The smaller is 4·8 in diameter by 5·6 inches in height.

No. 7784 has the appearance of the opening being in the front of the head, which is much pointed, as if the hair had been carried to a point above and dropped down the back of the neck in the form of a queue with two knots. The appearance of a high

No. 7784.



No. 7745.



forehead with a prominent nose and chin, which the woodcut gives, is not so apparent on examining the specimen, as the artist did not properly represent the narrowness of the projecting band by showing the neck upon which it rests. The height of this jar is 9 inches and its greatest diameter is 7·7 inches.

No. 7745 is one of these neck and head jars, of about the same size as 7785, but has the head part reduced to a simple spherical top without any attempt to form features.

No. 7774 is a jar of the general character of the preceding, but differs from them in being colored red, and in the whole jar being made to represent the form of a bird at rest, perhaps that of the horned owl. A front view shows the feet and projecting part of the folded wings, the large eyes, projecting feathers or "horns" of the head, and the bill, which has been broken off as shown in the cut. A back view represents the back of the head, with the aperture of the jar, the wings folded on the sides, and the pointed

tail, on which, with the legs in front, the jar firmly stands. The size of this very interesting vessel is 10 inches in height, 7 inches in diameter from wing to wing, and 6·7 inches in diameter from front to back.

No. 7774.

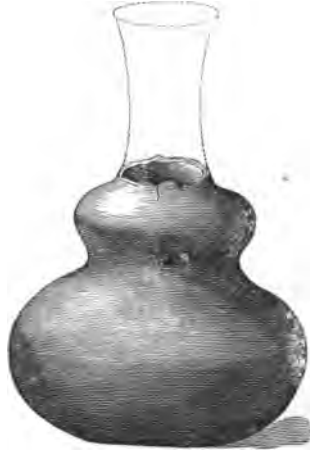


Col. Foster, in his *Prehistoric Races of the United States*, describes and figures two vessels of the same character as those mentioned above. On page 239 of his work he represents one from a mound near Belmont, Missouri, which in design is very close to those here figured as Nos. 7747, 7748 and 7750. The most interesting of his figures, however, in this connection, is that on page 243 of a "water jug found near the mouth of the Wabash." This figure shows the jar to be of the same rude design as Nos. 7783 and 7786 of the Swallow collection, and must be considered as having been made by the same people, though there is no indication of its having been found in a mound. (See pp. 53 and 54.)

Nos. 7759, 7760, 7787, 7788, 7789, 7790, 7791 and 7792 are water jars of various sizes and shapes, as shown in the four figures illustrating this group. 7759 differs from the others by being constricted in its upper portion. The neck of this jar is not preserved, but was probably like the restoration given in the figure. The diameter of greatest bulge of this vessel is from 6 to 6·2 inches. The constricted portion is about 3·3 in diameter, and the upper

bulge is $\cdot 5$ of an inch more than the constricted part. The present height (without the neck) is 5·5 inches.

No. 7759.



No. 7786 is remarkable for its flatness, the whole jar being 6·8 in height, but one-half of this is in the length of the neck. This jar is also much flatter at its base than any of the others, and has its greatest diameter 2·5 inches from the bottom where it measures 6 inches. The upper part of the neck is 2·3 inches in diameter.

No. 7787 is the most perfect in finish and symmetrical in form,

No. 7787.



No. 7788.



with a small sized neck. This jar is 8·3 in height, and has its greatest diameter 6·4 inches from the bottom.

No. 7788 has a diameter of 7 inches and is 8·5 inches high. No. 7790 is 6·5 high by about 4·9 in diameter. No. 7792 is the smallest and most rudely made: it is 3·5 high by 2·9 in diameter. Its neck is 1·8 long and the diameter of the mouth is about 1 inch. Nos. 7739, 7740, 7753, 7757, 7758, 7793, 7794, 7795, 7796, 7797, 7798, 7799 are all spherical vessels with short necks and moderately sized mouths and are of various sizes. Nos. 7753, 7795, and 7798 are figured and show the variation in the pattern.

No. 7792.



No. 7753 differs from the rest in having been colored red, and in having the bulging portion slightly indented so as to divide the sides into four slightly marked portions.

No. 7753.



No. 7740.



This vessel is 3·3 inches high, 4 inches in its greatest diameter, and 2·4 across the mouth which has a slightly turned lip.

No. 7740 is of similar shape and size to this, but has the surface divided into six projections instead of four. The lips of this are broken.

No. 7798 is not as well made as the others, the clay not hav-

No. 7795.



No. 7798.



ing been so well burned, and it is lighter in color, probably from

that fact. It is one of the smallest of the collection and the neck is without a turned lip. It is 3·6 inches in height by 3·4 in diameter.

No. 7795 is a nearly symmetrical vessel, made of the fine clay of which many of the articles are composed. It is 6·8 to 6·9 inches in its greatest diameter, 6·9 inches high, and 3·4 across the mouth. This vessel is slightly flattened at its base.

No. 7794 is the largest of the series, and is from 8·1 to 8·3 in diameter by 7·8 inches in height.

Nos. 7741, 7742, 7752 and 7754 are small vessels of the shape shown in the figures. 7742 might, from its finish and shape, be well classed as a drinking cup. It is 2·9 inches in height by 3·6 in greatest diameter, and about 3 inches across the mouth, the lip of which is slightly ornamented by small oblique lines cut in its inner border.

No. 7741.



No. 7742.



No. 7741 is not as symmetrical a vessel as the last mentioned, and has considerably thicker walls. It is about 3·6 inches high and about 5·3 in diameter with an uneven mouth about 3·5 inches across.

No. 7754 is a roughly made little cup, quite thick and only partially baked, about 2·6 inches high and with its greatest diameter equal to the height.

No. 7752.



No. 7754.



No. 7752 is another small cup about the size of 7754 but more spherical in shape and having a hole near its mouth, as shown in the figure. The opposite portion of the mouth is broken, but it is probable that a corresponding hole existed there, and that these

holes were for the purpose of suspending the cup. This perforated cup naturally leads to the next group of vessels, or pots with handles, of which class there are several of various sizes, with slight variation in finish and ornamentation.

Nos. 7763, 7778 and 7780 are the three largest pots, and are without ornamentation. Nos. 7763, and 7778 have the surface divided into six even portions by slight depressions. Nos. 7780 and a smaller pot, No. 7779, are perfectly plain and with even surfaces. No. 7767 is a smaller pot, of the character of 7763, with its surface divided into six portions. No. 7769 is a small vessel,

No. 7767.



No. 7770.



smooth on its sides, but with its lips marked by small oblique lines cut in the clay. No. 7770 is ornamented by a row of small depressions, as if made with a pointed stick while the clay was soft. No. 7771 is a little more elaborate in its ornamentation, the punctures extending down the sides in groups which are enclosed in lines cut into the clay. By the side of the figure of this pot is placed a figure of one of somewhat similar ornamentation, but which does not seem to be now with the collection, unless in fragments.

No. 7771.



No. 7800 is a large pot (now in fragments) ornamented in a

similar manner, but with the addition of small bunches of clay forming the bases from which the ornamental arches are sprung.

No. 7800.



The design on this vessel is carried out quite symmetrically.

No. 7772.



No. 7772 was evidently designed to represent the face of some animal in relief on one side of the pot, as shown in the figure; a portion of this face is on a missing fragment. The distance between the handles on the opposite side is marked off by four arches of double lines.

Nos. 7762, 7765 and 7766 are plain pots with four handles like

No. 7762.



No. 7773, and others from the Big Mound. No. 7766 is the smallest pot in the collection. No. 7765 is remarkably thick and heavy, weighing 2 pounds and 14 ounces, while 7762, of very nearly the same size, weighs but 1 pound 15 ounces.

No. 7768 is a small pot with eight handles. These handles extend from the lip to a projecting ridge round the pot as shown in

No. 7763.



No. 7768.



the figure, and this ridge is ornamented by vertical lines, evidently made with the thumb nail while the clay was soft.

The following table gives the dimensions of these several varieties of pots with handles :

No. 7763. Height 6 inches ; greatest diameter 8 inches.

| | | | | | | | |
|---------|---|-----|---|---|---|-----|---|
| " 7762. | " | 5·8 | " | " | " | 7·7 | " |
| " 7765. | " | 6 | " | " | " | 7·3 | " |
| " 7800. | " | 6 | " | " | " | 8 | " |
| " 7780. | " | 4·1 | " | " | " | 6 | " |
| " 7778. | " | 4·2 | " | " | " | 6·1 | " |
| " 7768. | " | 3·6 | " | " | " | 4·6 | " |
| " 7769. | " | 3·6 | " | " | " | 4·6 | " |
| " 7772. | " | 3·7 | " | " | " | 4·4 | " |
| " 7767. | " | 3·2 | " | " | " | 4·6 | " |
| " 7771. | " | 3·2 | " | " | " | 4·2 | " |
| " 7770. | " | 3·2 | " | " | " | 4·3 | " |
| " 7779. | " | 3·2 | " | " | " | 4·4 | " |
| " 7766. | " | 2 | " | " | " | 2·7 | " |

No. 7777 is a vessel transitional in form between the pots with two handles and the wide open vessels with two knobs. It agrees with the pots like No. 7800 in shape, but is provided with two flanges or knobs from the lip like No. 7715. It is four inches high, 5·8 in diameter at its bulging portion and four inches across its mouth.

Nos. 7715, 7720, 7733 and 7737 are all of the same character, but of various sizes and depths, and are of solid make. No. 7715 is the best finished and most symmetrical of the lot, and also the smallest, being but 2·4 inches in depth by 3·6 in diameter across its mouth which is its widest part. No. 7733 is 2 inches

No. 7715.



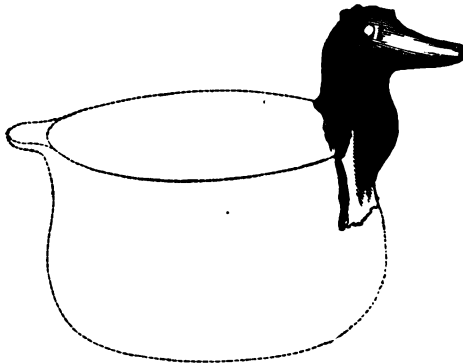
high and 4·5 in diameter. No. 7720 is 2·7 high by 4·6 in diameter. No. 7737 is of the same height as the last, but measures 5·2 in diameter.

Of the same character of vessels with those last described are the "head dishes," in which one of the knobs is made in the form of the head of some animal, or represents the human head, more or less perfectly moulded in the clay. No. 7717 is the most rude attempt to represent a bird's head, and is similar to that from the Big Mound figured under No. 7824. Nos. 7714, 7718 and 7719 are unmistakable representations of the heads of ducks. No. 7723 has

No. 7717.



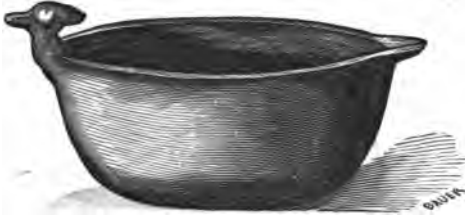
No. 7814.



the head of some animal with large ears, and differs in shape from the others in having the sides of the vessel turned inward

at the mouth, while all the others are wider at the mouth than in any other part. Of 7716 and 7818 only the heads are now

No. 7718.



preserved (unless the rest of the vessels are among the fragments that have not yet been restored). No. 7730 has a well

No. 7719.



No. 7723.



designed human head which was evidently made in two pieces and put together before the vessel was baked. In this the hair

No. 7716.



No. 7818.



is represented as carried over the top of the head and down its back in the form of a narrow braid. The eyes, mouth and ears are perforated so as to open into the hollow of the head. It will

be noticed that in all the instances where the human head is represented the face looks into the dish while all the birds' heads, and the head of the mammal, look outwards. (No. 7717 has the appearance of looking into the dish, but this rude head has a

No. 7730.



portion broken from the outside which probably would have better represented the bill of a bird pointed that way.)

The several most perfect of these head dishes measure as follows, the first figure representing the height, and the second, the diameter, across the opening: No. 7730, 4·7 by 9 inches; No. 7718, 3·8 by 8·5 inches; No. 7717, 3·5 by 7·6 inches; No. 7719, 4·2 by 7·6 inches; No. 7716, 3·2 by 6·8 inches; No. 7743, 3·1 by 7·8 inches; No. 7723, 3·1 by 3·5 inches.

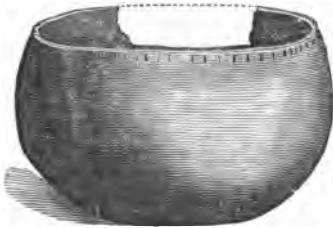
Col. Foster, on p. 246 of his work (reproduced here on p. 53), figures a "drinking cup" from a stone grave in Perry County, Mo. This cup is of the same design and pattern as No. 7730, and it may not be venturing too much if we conclude, from this very peculiar form of pottery, that the same race made the article found in the ancient cemetery of Perry County and those found in the mound in New Madrid in the same State. If this should be substantiated by further evidence we shall have the means of identifying the general cemeteries of the moundbuilders, or, at least, of that particular race who erected the mounds of the southwest. It has long been urged that the moundbuilders must have had other depositories for their dead than the mounds themselves, for, as numerous as the latter are, they do not often contain more than

one or two burials and hence they are not sufficient in number to serve as the only places of burial used by the race which must have been so great in numbers.

Nos. 7731 and 7732 are two very interesting circular dishes with low bulging sides, on two opposite portions of which the front and hind parts of animals are represented in relief, the wide mouths of the dishes occupying the position of the backs of the animals. No. 7731 has the projecting and upward turned head of a turtle with the front legs on its sides, while the hind legs are represented on the opposite portion. This dish is 2·9 high and 4·5 inches in diameter across the opening. No. 7732 is 3·7 inches high by 4 inches in diameter, and has a representation of a frog as the other has that of a turtle. Nos. 7817 and 7821 are probably portions of similar dishes representing other animals.

Nos. 7735 and 7736 are circular shallow dishes with rounded sides. No. 7735 is 4 inches high by 6·4 in diameter across its mouth. The outside of the edge of this dish is ornamented by

No. 7735.



No. 7736.



notches cut in the clay. No. 7736 is 5·4 in diameter and 3·3 high. It has the sides more rounded towards the mouth than is the case with the other, and has two deeply cut grooves around its open margin.

No. 7746 is a very thin and symmetrical dish, nearly flat on its bottom, with flanging sides. It is 3 inches in height by 5·1 inches in diameter, and without ornamentation. No. 7724 is a larger dish of similar shape, but thicker. The height is the same as the last, but its diameter is 8·2 inches.

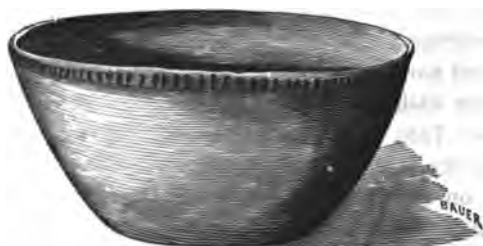
No. 7746.



Nos. 7721, 7722, 7725, 7726 and 7734

are basin-shaped dishes of various sizes and with slightly ornamented edges, as shown in the three figures.

No. 7723.



No. 7726.



No. 7725.



No. 7721 is 8·4 inches in diameter by 3 inches in height.

| | | | | | | | | | | |
|---|------|---|-----|---|---|---|-----|---|---|---|
| " | 7722 | " | 9·8 | " | " | " | 5 | " | " | " |
| " | 7725 | " | 8·7 | " | " | " | 3·7 | " | " | " |
| " | 7726 | " | 7·6 | " | " | " | 2·7 | " | " | " |
| " | 7734 | " | 5·1 | " | " | " | 1·8 | " | " | " |

No. 7728 is a similar dish, but without ornament on its edges, and is 7·2 in diameter by 3·5 in height.

Nos. 7727, 29, 38 and 44 are saucer-shaped dishes, perfectly plain and all about 2·5 inches in height and of the following diameters, 6·8, 7·8, 8, 8·1 inches.

The last perfect specimen of these interesting earthen vessels from this mound is the peculiar cup here figured under No. 7756. It is 2·4 inches high and 2·5 in diameter across its top, by 1·6 inches across its flat base. Its concave portion is .6 of an inch in its centre. This singular article has the appearance of having been worked into its

No. 7756.



shape entirely by pinching out a mass of plastic clay with the fingers, and it seems to have been hardened by fire only in its cavity, as if hot coals had been held in it.

No. 7815 is in fragments, but the figure conveys an idea of its character.

Among the numerous fragments of vessels of various shapes, the following are specially interesting: No. 7828, portions of a small vessel that stood on three short spherical hollow legs. This vessel is ornamented with stripes of red. No. 7755 is, probably, a leg of a similar vessel but of a larger size and not colored. No. 7826 consists of fragments of shallow dishes, colored red. Nos. 7802 and 7808, probably portions of the same vessel, represent a pot, of about the shape of No. 7762, that had evidently been used to hold the red paint with which several of the articles were colored.

No. 7815.



This last cut was received with the collection, but the vessel which it represents is either among the fragments and beyond recognition or was not received with the rest of the specimens.

Prof. Swallow concludes his account of the mounds he examined about New Madrid as follows:—

“These mounds appear very ancient. Soil has formed on them to the depth of three feet. The largest trees grow on them and the connected embankments, or levees.

“A sycamore twenty-eight feet in circumference three feet above the ground, a black walnut twenty-six feet in circumference, a *Quercus falcata* seventeen feet, a white ash twelve feet, and a chestnut oak eleven feet in circumference were observed on these mounds and accompanying embankments.

“The six feet of stratified sands and clays formed around the mounds since they were deserted, the mastodon's tooth found in these strata, and other facts indicate great age. These six feet of thin strata were formed after the mounds, and before the three feet of soil resting alike on the mounds and on these strata.

“There are numerous mounds in this Swamp country. I saw one in Pemiscot county thirty-five feet high, elliptical (longer axis N. and S.), one hundred and ninety-five feet long on top and one hundred and fifty feet wide. This mound is part of a large system of

earthworks ; there is a square about one thousand feet on each side surrounded with a line of earthworks or embankments several feet high, and the whole area is filled in about ten feet. In the area are two mounds, the one above mentioned and another smaller, fifteen feet high. There are also several basins in the area, circular and much depressed, and a canal on the south side of the square, fifty feet wide and twelve feet deep. The large mound mentioned was cracked open by the earthquake, as was very obvious when I visited it.

“ Col. J. H. Walker, who was a youth of sixteen years at the time of the earthquake, showed me the mound in 1856, and also many large cracks produced by the earthquake. One of these cracks ran through this large mound. Col. Walker told me :—This crack was opened by the severe shock of Dec. 11, 1811. It made a wide gap through the mound from top to bottom. He [Walker] went into it and saw at bottom about twenty feet of bones, some human, some fish, and some of other animals. Above the bones was a coat of plastering made of clay, cane and grass from five to thirteen inches in thickness. Col. Walker was a leading man in that country, well known all over the state, and was deemed very reliable.”

7876–7897. A very valuable and interesting series of articles of dress, ornaments and implements, collected from among the Sioux, Mandan, Snake, Assinnibone and Yanktonais tribes.—From Gen. H. A. MORROW, U. S. A.

7898–7899. Two silver bracelets from East Africa.—From EDWARD W. HOOPER.

7900–8043. Various articles in use by the present Indians of Brazil. A large collection of ancient pottery, consisting of burial urns, and numerous vases and dishes of various designs and shapes from several localities in the Province of Pará. Several hundred pieces of pottery and a number of stone implements of the ancient “Bluff Dwellers” near Santerem. A few specimens from ancient shellheaps, and human bones taken from burial urns. The most important articles in this interesting collection are the two large face urns, the large animal jar, and the several ancient vases and dishes of various, and, in some instances, elaborately carved patterns. These articles form a part of the Hartt collection, made with the assistance of funds furnished by the Museum, and

of which mention has been made in previous reports.—From Expl. Professor C. F. HARTT.

8044–8045. A native drum from unknown locality, and an ancient Hawaiian ivory bead necklace.—From BOSTON SOCIETY OF NATURAL HISTORY.

8046–8245. This collection, received from Expl. F. W. PUTNAM, was made with the assistance of funds furnished by the Museum. Facilities were also extended, in the explorations in Indiana, by the State Geologist, Professor Cox. While in Kentucky my connection with the Geological Survey, under Professor Shaler, secured extra facilities for the explorations there.

The following abstract of a special Report, made to the Trustees of the Museum on my return, will convey a general idea of the articles obtained and the conditions under which they were collected.

Several stone implements were collected from within the walls of the ancient stone and earth fortification on the Ohio River, near Charlestown, Indiana. This fortification has been described in detail by Professor Cox in his last Annual Report as State Geologist of Indiana, and consists of very extensive walls of stone laid without cement. At one place, on the side facing Fourteen Mile Creek, the wall is about seventy-five feet high, extending for some distance and filling a gap in the natural precipice on that side. Several fragments of flint arrowpoints were picked up within this enclosure, and Capt. Sam. C. Rucker, who lives near the fort, presented me with a few perfect implements he had found within the walls.

Another similar fortification was examined at Deputy, Indiana, and will be fully described by Professor Cox, in his next Report. The principal wall here was several hundred feet in length and was doubtless, originally, several feet in height. A singular stone mound, or monument, was also examined near Lexington, Indiana, but nothing that could be brought away was found at either of these last mentioned places. A large Refuse Circle, about four hundred feet in diameter, near Lexington, Indiana, proved to be unlike anything I had seen before, and from the abundance of split bones of animals, fragments of pottery, etc., found in the narrow ridge forming the circle, one can but consider this ridge as forming the outline (perhaps the inside of a stockade) of an ancient camp. Fragments of pottery, with bones of deer and other animals, were collected.

Numerous stone implements of various kinds, found about Charlestown, Indiana, were secured. Several of these were kindly given me by Mr. F. M. Runyan, of Charlestown.

A collection of stone implements was made at Grayson Springs, Kentucky, and vicinity. One very interesting moundbuilder's implement of the class generally known as "plumb-bobs," and made of magnetic iron, beautifully polished, was given to me by Mr. Chas. J. Adams of Grayson, though it was said to have been found "in a coal mine" on Green River. To Mr. Adams I am also indebted for several other stone implements from various localities.

The most important exploration in Grayson County, Kentucky, was that of the Rock Shelter near Grayson Springs. This was an overhanging ledge of rock, and on the shelves of rock and in the soil below them, were found several bones of animals, as well as a few flints, fragments of pottery, charcoal, etc., and two mortar holes were noticed cut in the solid rock. A large number of bones from this place are interesting in showing the manner in which they have been gnawed by rodents.

Several caves in the vicinity of the Mammoth Cave were explored, and important results obtained. So little is known of the use of caves in the United States, either for purposes of burial or as habitations, that every opportunity was taken for their exploration.

Sanders' Cave in Barren County, Haunted Cave in Edmonson County, and a dry (unnamed) Cave in Hart County, are probably to be classed only as burial caves. Of these, Haunted and the dry Caves had been much disturbed, and many human bones had been carried away by the residents in the vicinity. Haunted Cave had also received attention from other members of the Kentucky State Geological Survey, earlier in the year; still a number of human bones and two crania were obtained from these two caves in which the bodies had been buried with care. In Sanders' Cave (owing to its difficult entrance this cave has seldom been visited) many skeletons are to be found, but the cave has received the washings of a farm, and its filthy and wet condition renders investigation rather unpleasant, and the bones hard to secure in a perfect state. In this cave the bodies seem to have been placed at one time, and from two stone arrowheads, found among the ribs of one of the skeletons obtained, there is some ground for the belief that it may have been the burial place of the victims

of a battle on this "dark and bloody ground." Further study of the crania, however, will be necessary in order to determine the race to which they belong. Several crania, a number of other parts of human skeletons, and numerous bones of animals were obtained from this cave. The crania are all of the same character, having quite flat frontal bones and a deep depression just back of the coronal suture, and they are quite different from those of the dry caves, which are high and full in the frontal region. The tibiae in both lots show various degrees of flattening.

That some of the caves were used as places of, at least, temporary residence, was conclusively shown by my exploration of Salt Cave, which proves important in revealing a new phase in American archæology. This cave, in many respects, approaches the Mammoth Cave in the size of its avenues and chambers. Throughout one of the principal avenues, for several miles, were to be traced the ancient fire-places both for hearths and lights. For the latter purpose, small piles of stones were made with a hole in the centre of the pile to receive the bundle of dried fagots perhaps smeared with grease. Bundles of these fagots, tied up with twisted bark, were found in several places in the cave; and canereeds, probably the remains of ancient torches of the same character with those found in the Mammoth, Short, and Grand Avenue Caves, were also very abundant.

The most important discovery in this cave, however, was made in a small chamber, about three miles from the entrance, first noticed by my guides, Messrs. Cutlip and Lee. On the dry soil of the floor were to be seen the imprints of the sandalled feet of the former race who had inhabited the cave, while a large number of cast off sandals were found, neatly made of finely braided and twisted leaves of rushes.

A number of other articles were collected here, and were as follows: a small bunch of the inner bark of some tree, evidently prepared for use in the manufacture of an article of dress; several small lots of bark not quite so fine as that composing the bunch; a piece of finely woven cloth of bark, over a foot square, showing black stripes across it where it had been dyed, and also specially interesting in exhibiting the care which had been taken in darning; or mending a portion of it; a small piece of finely made fringe or tassel discovered in one of the places where the earth

had been disturbed; several fragments of large gourds; and two perfect flint arrowheads. Human excrements of great age and showing peculiar habits of life were noticed in numbers; and in several places the soil looked as if burials had been made and the bodies afterwards removed. No human bones were discovered, and the only remnants of articles that we noted indicating any kind of food were a few very much decayed shells of river muscles. A piece of shell of a *Unio* with a hole bored through it was also found. It is needless to add that everything in this interesting collection which it was possible to bring away was secured, though exposure to the outside air is very detrimental to specimens of vegetable substance so long preserved by the peculiar atmosphere of the cave, and it was only by thoroughly soaking the sandals, cloth, etc., in thin glue and mounting them between glass that I have succeeded in preserving them.

The braided sandals and woven cloth, together with the large gourds which were probably cultivated, and the absence of the bones of any animals used for food, are perhaps indications of an agricultural people dependent on their fields, rather than of a hunting nomadic race. In connection with these cave explorations I may add that I had the opportunity of obtaining the true history of the so-called "American Mummy" which was said to have been found in the Mammoth Cave about the year 1813, and about which so much was written soon after that time. The body was found in Short Cave, about eight miles from the Mammoth Cave, and I examined the spot from which it was taken. Since my return I have examined this most important relic, which is now in the collection of the American Antiquarian Society in Worcester. A careful comparison of the fabrics and articles found in Short Cave with those collected in Salt Cave conclusively proves their identity, and thus throws some light upon the race that made use of the caves for burial places, and gives us the means for the association of the osteological character of the race as determined from this body with articles found in Salt Cave; while from several peculiar conditions of the burial in Short Cave, hints bearing on the great antiquity of the race are given.

A large group of mounds was visited at Pageville, Munroe County, Kentucky. This group consisted of two mounds of about one hundred feet in diameter, and from twelve to fifteen feet high

and a number of smaller mounds about fifty feet in diameter and from three to five feet high. The group lies between Barren River and Peter's Creek, on the homestead of Gen. Joseph H. Lewis, who accompanied me to the spot. A large number of stone implements, undoubtedly made by the moundbuilders, have been found about these mounds, which are now mostly covered by corn-fields. I collected fragments of pottery on the surface. One of the small mounds was opened, but it only showed that a long continued fire had been kept on its top, burning the clay to the depth of several inches. A hole was then dug to the bottom, in the centre of one of the large mounds, yet nothing that could be considered as an undoubted relic of the moundbuilders was found. About three feet from the surface a human skeleton was taken out, though it was probably an intrusive burial by a later race than the one making the mound.

About one-eighth of a mile to the south of these mounds, on the brow of a hill, were found a number of graves of a peculiar character. Many of these graves have been ploughed over, and the human bones from them whiten the field for half an acre in extent. Two of the graves, however, had not been disturbed, at least below the surface, as their walls had been made of slabs of limestone of such size as to prevent the plough from passing over the spot. These graves were nearly circular, between four and five feet in diameter and about three deep. One was carefully opened and its contents taken out. These consisted of portions of fifteen human skeletons and a fragment of pottery. The bones and teeth showed that the bodies buried were those of persons of various ages, from three children, who had not lost their first set of teeth, to one person of old age. The grave had been formed by digging a hole nearly circular and about three feet in depth. Slabs of limestone, about three feet long and from one foot to two feet wide, brought from some distance, had then been placed on end around the hole, and the bottom had been carefully covered with thin shale brought from the creek a quarter of a mile away. The bodies of the adults had evidently been arranged in a sitting posture against the upright slabs and all at one time. Only fragments of the skeletons of the three children were found and the position in which they had been buried could not be determined. The earth had been thrown over all and a few small flat stones placed above. The fragment of pottery found was near the

surface and may indicate that vessels, and perhaps other articles, had been placed on the surface over the grave, and not buried with the bodies, as is more commonly the case.

This class of graves is unlike anything heretofore described, so far as I am now aware, and while it is quite different from anything of which we know among the Indian tribes, it is equally distinct from the burial customs of the moundbuilders so far as at present known. The close proximity of the group of mounds, the extreme care and labor with which the graves had been made, their large number at this place (nearly thirty could be traced, and a very large number must have been entirely destroyed by cultivation of the land over them), and the fact that a number of bodies of various ages were enclosed at the same time in one grave, give occasion for much speculation.

Seven of the crania from this grave were obtained in such condition as to permit of their comparatively perfect restoration, and all the bones found in the grave were brought home, though they were in the last stages of decay, and it was necessary to saturate all with glue in order to preserve them in their present condition.

The several crania obtained from this grave vary somewhat in shape, yet they are, in general, remarkable for their shortness and great parietal width. They all show an occipital flattening which in one skull is very marked. A study of these crania has not been made, but while they resemble the short and high skulls of the moundbuilders, they seem to have some peculiarities not noticed in the few mound skulls I have examined. The long bones of the skeletons indicate a race of ordinary height, though the massiveness of the bones is, perhaps, above the average. The tibiae are all decidedly flattened, and the femora are, perhaps, slightly more curved than is usual. But on all these points further study is necessary.

Respectfully,

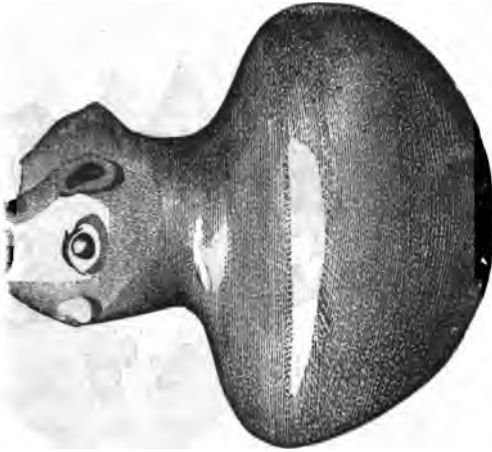
Your Obedient Servant,

F. W. PUTNAM.

PEABODY MUSEUM, CAMBRIDGE, Jan. 12, 1875.

In order to permit of ready comparison of the figures of the several vessels referred to in the preceding pages of this Report, the cuts used by Col. Foster in his "Prehistoric Races of the

From Foster, p. 243.



"Water-jug," one-half natural size, from near the mouth of the Wabash.

From Foster, page 243.



"Drinking Cup," one-fourth natural size, from Cemetery in Perry Co., Mo.

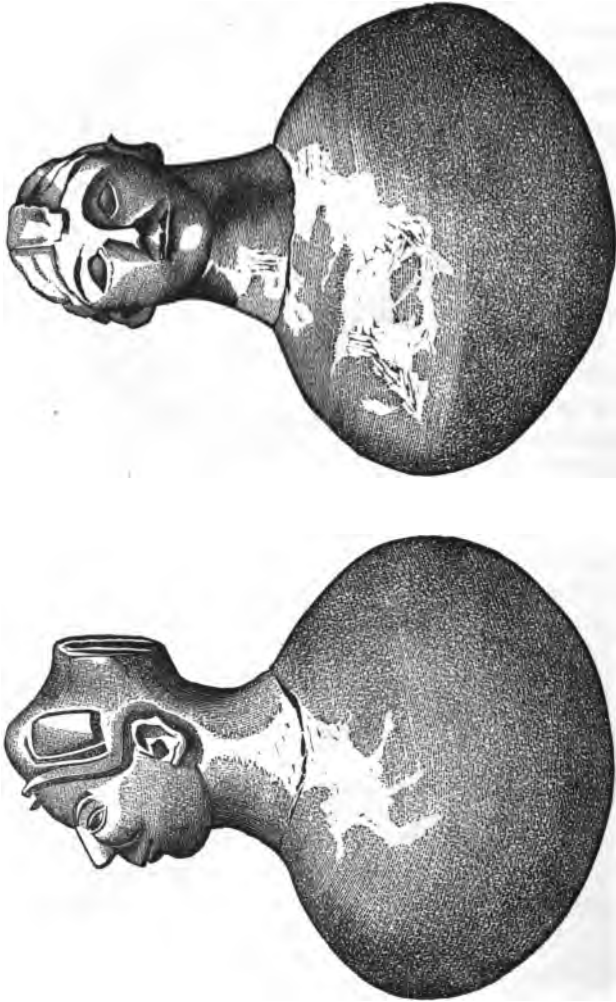
From Foster, p. 237.



"Water-coolers," eight inches high, from Cemetery in Perry Co., Mo.

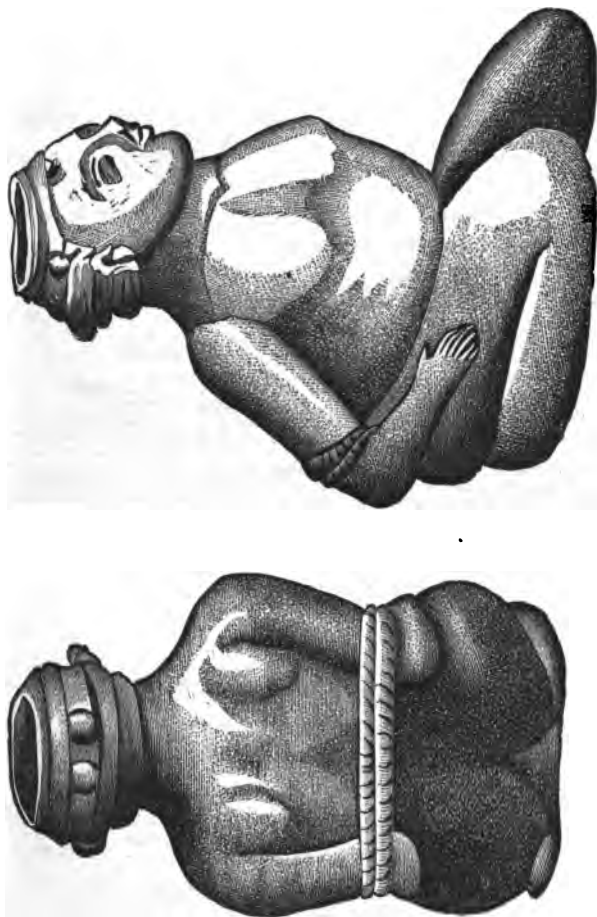
United States," and in his article in the "American Naturalist," Vol. vii, 1873, are here reproduced by courtesy of the Editors of the Naturalist.

From Foster, p. 233.



"Water-Jugs," eight and one-half inches high, from a mound near Belmont, Mo.

From Foster, p. 240.



"Statuette" eight inches high from a mound near Helmont, Mo.

REPORT OF THE TREASURER.

*To the Trustees of the Peabody Museum of American Archaeology and
Ethnology in connection with Harvard University:*

The Treasurer respectfully presents his Eighth Annual Report in the abstract of accounts, and the cash account hereto annexed:—

The Collection Account is charged with

| | | |
|---|------------|-------------|
| 9 Massachusetts 5 per cent. Specie Coast Defence Notes, due July 1, 1863, each for \$5,000, numbered 46 to 54, registered, the gift of George Peabody, Esq. | | \$45,000 00 |
| Income from above Notes in currency | \$2,507 85 | |
| Income from Massachusetts 5 per cent. Specie Notes of Professor Fund in currency | 2,507 34 | |
| Income from Investments by Treasurer | 562 03 | |
| | <hr/> | 5,576 73 |
| Note of Worcester & Nashua R. R. Co., dated July 5, 1873, on demand, Interest 7 per cent. | 5,000 85 | |
| Note of City of Worcester, dated Jan. 1, 1874, on demand Interest 7 per cent. | 3,000 00 | |
| Note of Worcester & Nashua R. R. Co., dated Jan. 3, 1874, on demand Interest 7 per cent. | 1,991 77 | |
| | <hr/> | 9,992 12 |
| Balance due to Treasurer | | 23 37 |
| | | <hr/> <hr/> |
| | | \$60,592 21 |

And Collection Account is credited with

| | | |
|--|----------|-------------|
| 9 Massachusetts 5 per cent. Specie Notes, as above each for \$5000 | | \$45,000 00 |
| Note of Worcester & Nashua R. R. Co., dated Jan. 6, 1875, on demand Interest 7 per cent. | | 9,983 88 |
| Payment for Explorations and Collections | 1,200 88 | |
| Payment for Prof. Swallow's Collection in Missouri, \$1,500; Expenses, \$109 16 | 1,609 16 | |
| Salary of Prof. Wyman as Curator | 1,500 00 | |
| Rent paid Harvard College for Hall | 750 00 | |
| Incidental Expenses | 848 79 | |
| | <hr/> | 5,808 83 |
| | | <hr/> <hr/> |
| | | \$60,592 21 |

The Professor Fund consists of

| | | |
|---|-------------|-------------|
| 9 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000, numbered 55 to 63 registered, the gift of George Peabody, Esq.; the income being appropriated to the Collection Fund, until the Professorship shall be filled | <hr/> <hr/> | \$45,000 00 |
|---|-------------|-------------|

The Building Account is charged with

| | | |
|---|-----------|--------------------|
| 12 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000, numbered 64 to 75 registered, the gift of George Peabody, Esq. | | \$60,000 00 |
| Income from above Notes in currency | 3,343 13 | |
| Income from Investments of Treasurer | 2,277 98 | |
| | | 5,621 08 |
| Accrued Interest on Worcester & Nashua R. R. Bond, bought Jan. 3, 1874 | | 18 28 |
| 9 City of Worcester Water Bonds, due June 1, 1877, Interest 6 per cent. | 4,500 00 | |
| 8 City of Worcester Sewer Bonds, due June 15, 1877, Interest 6 per cent. | 2,100 00 | |
| 6 Worcester & Nashua Railroad Co. Bonds, dated Dec. 31, 1870, Interest 7 per cent., S. A. | 6,000 00 | |
| 11 Worcester & Nashua R. R. Co. Bonds, dated April 1, 1873, Interest 7 per cent., S. A. | 11,000 00 | |
| City of Worcester, Note dated Jan. 1, 1874, Interest 7 per cent., S. A. | 8,000 00 | |
| Note of Worcester & Nashua R. R. Co., Note dated Jan. 5, 1874, Interest 7 per cent. S. S. | 550 88 | 33,150 88 |
| | | <u>\$97,790 23</u> |

And Building Account is credited with

| | | |
|--|-----------|--------------------|
| 12 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000 | | \$60,000 00 |
| 9 City of Worcester Water Bonds, due June 1, 1877, Interest 6 per cent. S. A. | 4,500 00 | |
| 8 City of Worcester Sewer Bonds, due June 15, 1877, Interest 6 per cent. S. A. | 2,100 00 | |
| 6 Worcester & Nashua R. R. Co. Bonds, dated Dec. 31, 1870, Interest 7 per cent. S. A. | 6,000 00 | |
| 11 Worcester & Nashua R. R. Co. Bonds, dated April 1, 1873, Interest 7 per cent. S. A. | 11,000 00 | |
| City of Worcester Note, dated Jan. 1, 1874, Interest 7 per cent. S. A. | 8,000 00 | |
| 40 Shares Philadelphia, Wilmington & Baltimore R. R. Stock, par \$2,000, cost | 2,192 63 | |
| Note of Worcester & Nashua R. R. Co., dated Jan. 6, 1875, Interest 7 per cent. S. A. | 3,997 59 | 37,790 23 |
| | | <u>\$97,790 23</u> |

The Investments of the

| | | |
|--|-------------|---------------------|
| Collection Fund, at par, amount to | \$54,983 38 | |
| Professor Fund, at par, " " | 45,000 00 | |
| Building Fund, at par, " " | 97,790 22 | |
| | | <u>\$197,773 60</u> |

STEPHEN SALISBURY, *Treasurer.*

Jan. 14, 1875.

Dr.

STEPHEN SALISBURY, *Treasurer of the Peabody Museum of American Archaeology,*
1874. *For Collection Fund.*

| | | | |
|------|-----|--|--|
| Jan. | 27. | To rec'd for Worcester & Nashua R. R. Co. Note of 5th inst., Principal \$1991.77, Interest \$9 | \$2,000 77 |
| July | 1. | To rec'd 6 Months' Interest on Worcester Note of Jan. 1, 1874. | 105 00 |
| July | 3. | To rec'd 6 Months' Interest on Worcester & Nashua R. R. Note of July 5, 1873 | 175 00 |
| | | | <hr/> |
| July | 3. | To rec'd 6 Months' Interest on Mass. 5 per cent. Specie Notes in Gold | 1,125 00 |
| July | 3. | To rec'd for sale of above Gold at 10 $\frac{1}{2}$ per cent. | 116 72 |
| July | 3. | To rec'd 6 Months' Interest on Mass. 5 per cent. Specie Notes of Professor Fund in Gold | 1,125 00 |
| July | 3. | To rec'd for sale of above Gold at 10 $\frac{1}{2}$ per cent. | 116 72 |
| | | | <hr/> |
| July | 3. | To rec'd in part of Worcester & Nashua R. R. Co. Note of July 3, 1874 | 169 24 |
| July | 7. | To rec'd balance of Principal of Worcester & Nashua Note of July 3, 1874 | 1,604 07 |
| | | | <hr/> |
| July | 7. | To rec'd Interest on above Note | 1,773 31 |
| Oct. | 6. | To rec'd in part of Worcester & Nashua R. R. Note of July 5, 1873 | 1 25 |
| Nov. | 12. | To rec'd of Estate of Prof. Wyman repayment of Appropriation paid Jan. 21, 1874 | 100 00 |
| Nov. | 14. | To rec'd in part of Worcester Note of Jan. 1, 1874 | 300 00 |
| Dec. | 29. | To rec'd balance of Worcester Note of Jan. 1, 1874 | 720 00 |
| Dec. | 29. | To rec'd balance of Worcester Note of Jan. 1, 1874 | 2,280 00 |
| Dec. | 29. | To rec'd Interest on above Note | 97 53 |
| | | | <hr/> |
| Jan. | 2. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st inst., in Gold | 1,125 00 |
| Jan. | 2. | To rec'd for sale of above Gold at 12 $\frac{1}{2}$ per cent. | 140 63 |
| Jan. | 2. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes of Professor Fund to 1st inst., in Gold | 1,125 00 |
| Jan. | 2. | To rec'd for sale of above Gold at 12 $\frac{1}{2}$ per cent. | 140 62 |
| | | | <hr/> |
| Jan. | 4. | To rec'd for balance of Worcester & Nashua R. R. Co. Note of July 5, 1873 | 2,531 25 |
| Jan. | 4. | To rec'd for balance of Worcester & Nashua R. R. Co. Note of July 5, 1873 | 4,900 35 |
| Jan. | 4. | To rec'd Interest on above Note | 174 25 |
| | | | <hr/> |
| | | | 5,074 60 |
| | | | <hr/> |
| | | | To Balance due to Treasurer carried to New Account |
| | | | 23 37 |
| | | | <hr/> |

For Building Fund.

| | | | |
|-------|----|--|--------|
| 1874. | | | |
| April | 1. | To rec'd 6 Months' Interest on Worcester & Nashua R. R. Bonds | 350 00 |
| April | 1. | To rec'd Interest on Worcester & Nashua R. R. Bond accrued before purchase, Jan. 3 | 18 28 |
| April | 1. | To rec'd balance of Interest on above to date | 16 72 |
| | | | <hr/> |
| | | | 35 00 |

Amount carried forward \$18,050 52

Cr.

etc., in connection with Harvard University in Annual Cash Account, Jan. 12, 1875.
1874.

| | | | |
|----------|--|----------|----------------|
| Jan. 17. | By paid C. G. Brewster for stone implements . . . | | \$120 00 |
| Jan. 21. | By paid Prof. Wyman postage of Report \$5.50; paid Sawin's Express \$8.25; 7 Blank Books \$4.50 . . | 18 25 | |
| Jan. 21. | By paid Prof. Wyman salary as Curator | 500 00 | |
| Jan. 21. | By paid Prof. Wyman in part of Appropriation for Explorations, etc. | 300 00 | |
| Jan. 21. | By paid Doe & Hunnewell for cases | 325 00 | |
| | | | <hr/> 1,143 25 |
| Feb. 3. | By paid Harvard College one year's rent of Hall to 1st inst. | 750 00 | |
| Feb. 3. | By paid one year's rent of Safe Deposit | 30 00 | |
| Feb. 14. | By paid Charles F. Hartt for Explorations and Col- lections in Brazil | 400 00 | |
| June 12. | By paid Wm. A. Turner for Indian Curiosities . . | 250 00 | |
| June 16. | By paid Henry Gilman expenses in Examining M. A. Swallow's Collection | 97 68 | |
| June 26. | By paid Charles F. Hartt on account of Explorations in Brazil | 200 00 | |
| | | | <hr/> 1,727 68 |
| July 3. | By paid for Worcester & Nashua R. R. Co. Note, on demand, Interest 7 per cent. S. A. | 1,773 81 | |
| July 3. | By paid Salem Press bill of Printing Report . . . | 169 24 | |
| July 3. | By paid M. A. Swallow for Collection of Missouri Antiquities \$1,500; packing \$11.50 | 1,511 50 | |
| July 25. | By paid Sawin's Express \$2.30; Insurance of Swal- low's Collection \$4.00 | 6 30 | |
| Aug. 5. | By paid Porter C. Bliss in advance for Collection in Mexico | 50 00 | |
| Oct. 3. | By paid F. W. Putnam for Explorations and Collec- tions in Kentucky | 100 00 | |
| Nov. 7. | By paid Estate of Prof. Wyman for Postage and Sun- dry payments | 20 53 | |
| Nov. 7. | By paid Estate of Prof. Wyman for paid Sawin's Express | 42 75 | |
| | | | <hr/> 63 28 |
| Nov. 13. | By paid Estate of Prof. Wyman two years' salary from Jan. 1, 1873 | 1,000 00 | |
| Dec. 10. | By paid F. W. Putnam for Expenses in Exploration in Kentucky, more than appropriation | 17 60 | |
| | | | <hr/> |
| 1875. | | | |
| July 4. | By paid for Worcester & Nashua R. R. Co. Note, on demand, Interest 7 per cent. S. A. | | 9,983 38 |

Amount carried forward

\$17,665 52

Dr.

| | Amount brought forward, | \$18,050 52 |
|---|-------------------------|-------------|
| June 16. To received 6 Months' Interest on Worcester Water Bonds to 1st inst. | 135 00 | |
| June 16. To rec'd 6 Months' Interest on Worcester Sewer Bonds to 15th inst. | 63 00 | |
| June 30. To rec'd 6 Months' Interest on Worcester & Nashua R. R. Co. Bonds to July 1 | 210 00 | |
| July 1. To rec'd 6 Months' Interest on Worcester Note for \$8,000 at 7 per cent. to date | 280 00 | |
| July 3. To rec'd for Worcester & Nashua R. R. Co. Note April 1, 1874, \$350 and 3 months' Interest 7 per cent. \$6.28 | 356 28 | |
| July 3. To rec'd for Worcester & Nashua R. R. Co. Note, Jan. 3, 1874, \$550.86 and Interest 7 per cent. \$19.28 | 570 14 | |
| July 3. To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st inst., Gold | 1,500 00 | |
| July 3. To rec'd for sale of above \$1,500 Gold at 10½ per cent. | 155 62 | |
| | | 3,270 02 |
| Oct. 1. To rec'd 6 Months' Interest on Worcester & Nashua R. R. Bonds at 7 per cent. | | 385 00 |
| Dec. 17. To rec'd 6 Months' Interest on Worcester Water Bonds to 1st inst. | 135 00 | |
| Dec. 17. To rec'd 6 Months' Interest on Worcester Sewer Bonds to 1st inst. | 63 00 | |
| Dec. 29. To rec'd 6 Months' Interest on Worcester Note of \$8,000, at 7 per cent. to Jan. 1, 1875 | 280 00 | |
| 1875. | | |
| Jan. 1. To rec'd 6 Months' Interest on Worcester & Nashua R. R. Co. Bonds to date, at 7 per cent. | 210 00 | |
| Jan. 2. To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st inst., Gold | 1,500 00 | |
| Jan. 2. To rec'd for sale of above \$1,500 Gold at 12½ per cent. | 187 50 | |
| | | 2,375 50 |
| Jan. 6. To rec'd for Worcester & Nashua R. R. Co. Note, July 3, 1874, \$3,305.02 at 7 per cent. Interest \$117.60 | 3,422 62 | |
| Jan. 6. To rec'd for Worcester & Nashua R. R. Co. Note, Oct. 1, 1874, \$385.00 at 7 per cent. Interest \$7.10 | 392 10 | |
| | | 3,814 72 |

\$27,865 76

Cr.

Amount brought forward

\$17,665 52*For Building Fund.*

1874.

| | | |
|----------|--|----------|
| April 1. | By paid for Worcester & Nashua R. R. Co. Note, on demand, Interest 7 per cent. S. A. | 350 00 |
| July 3. | By paid for Worcester & Nashua R. R. Co. Note, on demand, Interest 7 per cent. S. A. | 3,305 02 |
| Oct. 1. | By paid for Worcester & Nashua R. R. Co. Note, on demand, Interest 7 per cent. S. A. | 385 00 |

1875.

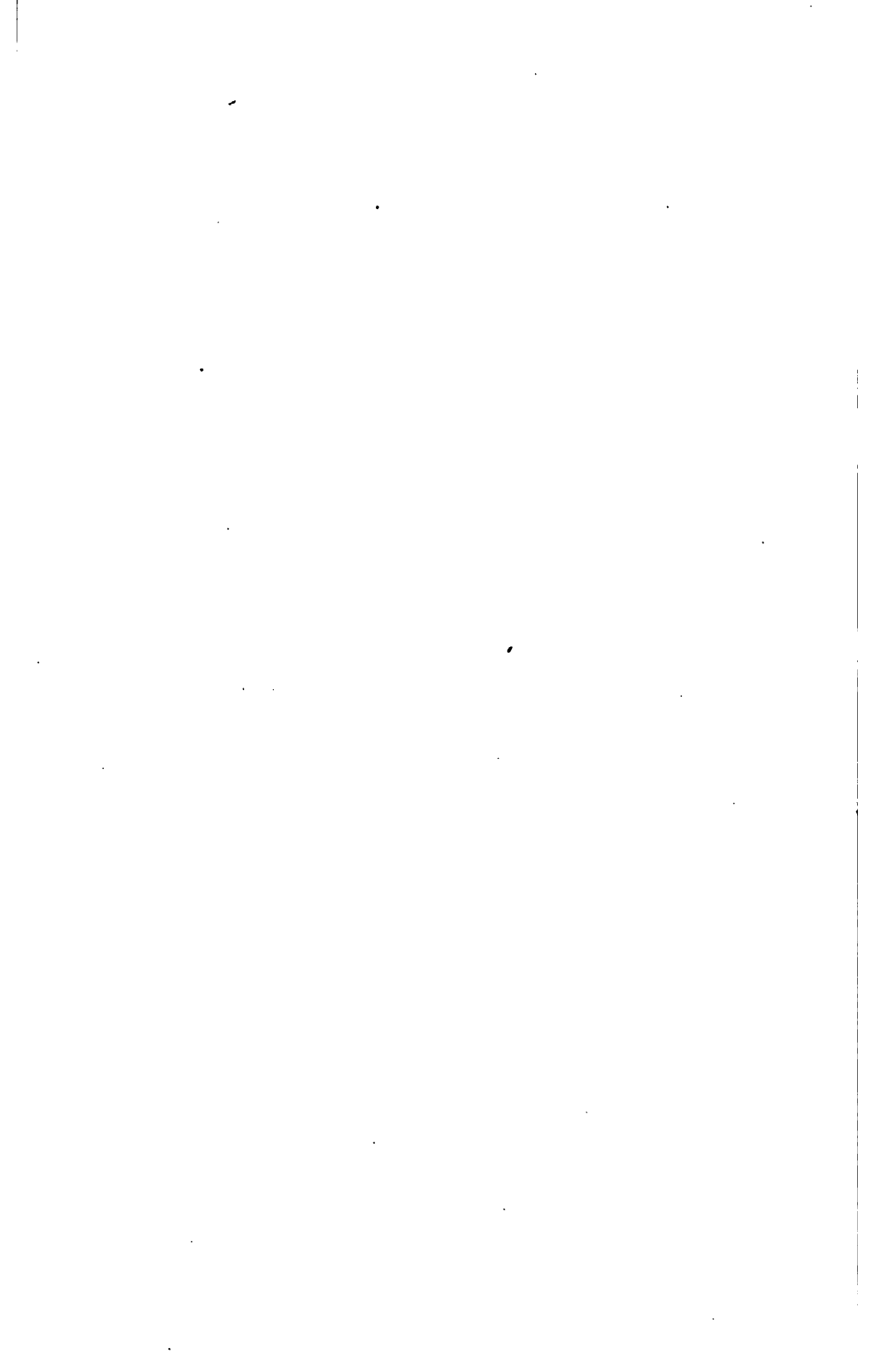
| | | |
|---------|---|----------|
| Jan. 4. | By paid for 40 shares Philadelphia, Wilmington & Baltimore R. R. Stock \$2,000, prem. and com. \$192.63 | 2,192 63 |
| Jan. 6. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 7 per cent. S. A. | 3,997 59 |

\$27,895 76

WORCESTER, Jan. 12, 1875.

I have examined the securities and vouchers named in the above account, and find the statements to be correct, and the account to be accurate, and that the securities are in possession of the Treasurer.

SAM'L F. HAVEN, Auditor.



NINTH ANNUAL REPORT
OF THE TRUSTEES
OF THE
PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY,

PRESENTED TO THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, APRIL, 1876.

CAMBRIDGE.
PRINTED BY ORDER OF THE TRUSTEES.
1876.

**PRINTED AT THE SALEM PRESS,
SALEM, MASS.**

NINTH ANNUAL REPORT.

TO THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE:—

The Trustees of the Peabody Museum of American Archæology and Ethnology herewith respectfully communicate to the President and Fellows of Harvard College, as their Ninth Annual Report, the Reports of their Curator and Treasurer for the year ending January 19, 1876.

ROBERT C. WINTHROP,
CHAS. FRANCIS ADAMS,
STEPHEN SALISBURY,
ASA GRAY,
HENRY WHEATLAND,
THOMAS T. BOUVÉ.

CAMBRIDGE,
April 28, 1876.

PEABODY MUSEUM
OF
AMERICAN ARCHÆOLOGY AND ETHNOLOGY
IN CONNECTION WITH
HARVARD UNIVERSITY.

FOUNDED BY GEORGE PEABODY, OCTOBER 8, 1836.

TRUSTEES.

ROBERT C. WINTHROP, Boston, 1866.
CHARLES FRANCIS ADAMS, Quincy, 1866.
FRANCIS PEABODY, Salem, 1866; *deceased*, 1867.
STEPHEN SALISBURY, Worcester, 1866.
ASA GRAY, Cambridge, 1866.
JEFFRIES WYMAN, Cambridge, 1866; *deceased*, 1874.
GEORGE PEABODY RUSSELL, Salem, 1866; *resigned*, 1876.
HENRY WHEATLAND, Salem, 1867. Successor to Francis Peabody, as
President of the Essex Institute.
THOMAS T. BOUVÉ, Boston, 1874. Successor to Jeffries Wyman, as
President of the Boston Society of Natural History.
THEODORE LYMAN, Brookline, 1876. Successor to George Peabody Rus-
sell, by election.

OFFICERS.

ROBERT C. WINTHROP, *Chairman*, 1866.
STEPHEN SALISBURY, *Treasurer*, 1866.
GEORGE PEABODY RUSSELL, *Secretary*, 1866-1873.
HENRY WHEATLAND, *Secretary*, 1873.
JEFFRIES WYMAN, *Curator of the Museum*, 1866-1874.
ASA GRAY, *Curator of the Museum, pro tempore*, 1874-1875.
FREDERICK W. PUTNAM, *Curator of the Museum*, 1875.
LUCIEN CARR, *Assistant in the Museum*, 1875.

ABSTRACT FROM THE RECORDS OF THE TRUSTEES.

At the Annual Meeting held on January 19, 1876, the Chairman read the following letter from Mr. Russell :—

BRISTOL, R. I., 12 JAN., 1876.

"HON. R. C. WINTHROP: Chairman of the Trustees of the Peabody Museum of American Archæology and Ethnology.

MY DEAR SIR:—Owing to the necessity of my continued residence in England, for several years to come, and my consequent inability to take an active part in the Proceedings of the Peabody Museum Trust, I beg to resign my position as Trustee. Will you be good enough to communicate my resignation to the Board, with the assurance of my continued interest in the object of the Trust, and my sincere good wishes for its success.

I remain faithfully yours,

G. PEABODY RUSSELL.

Whereupon it was

Resolved, That while the Trustees deeply regret to lose from their number the direct representative of the munificent Founder of this Museum, they cannot be insensible to the force of the reasons which Mr. George Peabody Russell has assigned for his resignation, and to the importance of having so small a Board composed of members who may be generally at hand for discharging the responsible duties involved in the Trust committed to them; and that they therefore accept the resignation of Mr. Russell, and will proceed to fill the vacancy thus created.

Resolved, That the thanks of the Trustees be presented to George Peabody Russell, Esq., for his services during the nine years which have elapsed since the foundation of the Museum by his illustrious uncle; and that the chairman communicate to him an assurance of our warm appreciation of his considerate regard for the interests of the Institution, and of our hearty wishes for his personal welfare.

Col. THEODORE LYMAN was unanimously elected a trustee to fill the vacancy caused by the resignation of Mr. Russell.

As an acknowledgment of the interest taken in the Museum by Mr. Agassiz, the following resolution was adopted :

Resolved, That the thanks of the Trustees be presented to Mr. Alexander Agassiz for his numerous and valuable contributions to the Museum, and for the efficient interest he has taken in its welfare.

The Committee, appointed at the preceding meeting, to consider the subject of a building for the Museum, submitted the following report :—

"Our Founder, Mr. Peabody, in the Instrument of Trust, after giving directions about the employment of ninety out of the one hundred and fifty thousand dollars committed to our care, provided as follows :—

'I further direct that the remaining sum of sixty thousand dollars be invested and accumulated as a Building Fund, until it shall amount to at

least one hundred thousand dollars, when it may be employed in the erection of a suitable fire-proof Museum building, upon land to be given for that purpose free of cost or rental, by the President and Fellows of Harvard College; the building, when completed, to become the property of the College for the uses of this Trust and none other.'

It now appears, by the report of the Treasurer, that this Building Fund has been invested and accumulated, until it amounted on the 15th day of January instant to the sum of one hundred and three thousand, seven hundred and sixty-five dollars and ten cents. The Trustees are thus at liberty to proceed in the erection of a Museum building, whenever they shall think it best to do so.

The undersigned are of the opinion that the work should be undertaken at once, and that with this view, the President and Fellows of Harvard College should be called on to assign the land required for the edifice.

The undersigned are moved to come to this conclusion, *primarily*, by the great and growing want of accommodation for the collections of the Museum. We cannot do justice to the treasures which have been gathered from so many sources, by purchase, by exchange and by gift, without much larger space than our present temporary rooms will afford.

Meantime, they cannot but remember, that it is a peculiar and favorable moment for entering upon such a work, and that contracts for its execution may now be made to great pecuniary advantage.

It may be thought wise for the Trustees to begin by erecting only a part of the proposed building and to leave a portion of the Building Fund to accumulate still further. But all this will be a subject for future consideration. The first thing to be done is to obtain from the Government of the College a suitable and satisfactory lot of land. When this has been arranged, it will be easy to proceed with plans for the Building in part or in whole.

The undersigned, therefore, confine themselves in this report to recommending the adoption of the following resolutions:

Resolved, That the Building Fund, provided by Mr. Peabody, having by investment and accumulation reached the amount prescribed in the Instrument of Trust, the Trustees will proceed at once to the erection of a Museum Building.

Resolved, That the above resolution be respectfully laid before the President and Fellows of Harvard College, with the request that a suitable lot of land may be selected and assigned for the Peabody Museum Building agreeably to the terms of Mr. Peabody's Instrument of Trust.

[Signed] ROBERT C. WINTHROP,
STEPHEN SALISBURY,
ASA GRAY."

Cambridge, Jan. 19, 1876.

The above resolutions were adopted, and the Chairman was requested to communicate the same to the President of Harvard College.

HENRY WHEATLAND, *Secretary*.

REPORT OF THE CURATOR.

TO THE TRUSTEES OF THE PEABODY MUSEUM OF AMERICAN ARCHÆ-
OLOGY AND ETHNOLOGY :—

Gentlemen:—As Curator of the Museum I respectfully present the following Report, covering the operations in connection with the Museum since the date of the last report, Jan. 12, 1875.

In accordance with the arrangements made with the Corporation of Harvard College, the rooms on the lower floor of Boylston Hall, occupied for purposes connected with the Museum, were exchanged in July last for a large room adjoining the temporary exhibition room on the upper floor of the building.

The cases in the large museum hall, formerly occupied by the anatomical collection of the late Prof. Wyman, which have been placed at the service of the Museum have not yet been used, but as soon as the weather permits working in the large hall, I propose to arrange on the lower floor the extensive collection which the Museum now possesses relating to the Archæology and Ethnology of South America. This arrangement will be followed by the transfer, from the upper hall to the lower, of all the articles from other places than North America and Europe, which will give room for the exhibition of the recent accessions in their proper ethnological connection, though not in the properly classified and systematic manner that is desirable, which can only be obtained when the Museum is removed to a building adapted to its requirements.

On making an examination of the specimens on exhibition during the past summer, it was found that those articles made of materials subject to the attacks of insects were so badly infested as to make it necessary to remove them from the cases and poison them. Nearly all such specimens are now in tight tin boxes specially constructed for the purpose, and it is proposed to keep

them thus closed until proper glass cases can be provided for their exhibition. I would suggest, however, that no further expenditure be made for cases in the present building, and that all the arrangements made in the rooms now assigned for the use of the Museum be regarded simply as temporary storage.

The Museum has been open during the past year to all who have applied for admittance. We have also been honored with calls from several prominent archæologists, who have expressed surprise at the value and importance of the Museum, which has been formed so quietly as to be beyond their expectations.

The moving of so large a portion of the collection from the lower rooms to the new work and storage room, and the numerous additions of specimens, especially of articles of pottery in a broken state, has made it necessary to perform much extra labor during the year, and I have the pleasure of calling your special attention to the very important and faithful assistance I have received from Mr. Lucien Carr of Cambridge, who, with the exception of the time he was absent in Kentucky during part of the summer, has been constantly at work in the Museum as a voluntary assistant. For a few weeks in the summer, while the moving was going on, it was necessary for me to employ a special assistant, and Mr. F. B. David filled the position in a very satisfactory manner. To Mr. Ernest Jackson, of the sophomore class, I am also indebted for considerable assistance. While thus giving his aid in the preparation of specimens, Mr. Jackson is gradually attaining the general knowledge in archæology which was his desire when offering his services.

During the year the memoir on the "Fresh-water Shell Heaps of the St. John's River, Florida," by the former curator of the Museum, the late Professor Jeffries Wyman, has been carried through the press, and it has been a pleasure to me to give such assistance as my knowledge of the specimens collected by Professor Wyman, and contained in the Museum, rendered possible. The work is now printed as the fourth of a series of memoirs published by the Peabody Academy of Science at Salem, and forms the most important treatise on the subject of shell mounds in America ever published. It will be of special importance to this Museum in furnishing the means of arranging, in accordance with his views, the extensive collection made by Professor Wyman.

The additions to the Museum, though quite extensive, have all

been prepared and entered in the catalogue to date. Eleven hundred and sixty-three entries have been made since the last report. In this work I have been very materially assisted by Mr. Carr.

The most important collection received, and, I believe, the largest donation ever made to the Museum, is that from Peru and Bolivia, collected by Mr. Alexander Agassiz and his assistant, Mr. S. W. Garman. This collection was made at the personal expense of Mr. Agassiz, by whom it was not only presented to the Museum, but delivered in Cambridge free of all charge for transportation from Peru. It is entered in the catalogue under the numbers 8380 to 8918 inclusive, and may be briefly characterized as follows:—

Several bodies or "mummies" in their wrappings, obtained from the ancient burial ground at Ancon. These show the several modes of wrapping the bodies for burial, and are very important in illustrating the peculiar burial customs of the ancient Peruvians of the coast. From this same extensive cemetery there are a number of articles of pottery, including vessels of various patterns and four idols; a large number of articles of clothing and pieces of cloth of various textures and designs; balls and skeins of thread of several colors; spindles with different patterns of whorls, and other articles connected with weaving, which art was developed to a very high state by the ancient Peruvians. Many other articles were also obtained from the graves, such as work boxes finely made of split reeds; ornaments and beads of silver, copper, shell and stone; an antler of a deer; corn in nets; fishing nets, etc., etc.; also a number of articles the names and use of which are unknown. Besides the bodies mentioned there are several heads of mummies, showing the peculiar manner of wrapping the head for burial and of dressing the hair.

From the adjoining burial place at Chancay, about seventy jars, vases and other vessels of various designs were obtained. Also several terra-cotta idols and images. This collection, when taken with that from Ancon, and the one presented by the late Professor Agassiz, also made at the latter place, gives a very full and important exposition of the ceramic art of the ancient people from the central portion of the coast of Peru, while that made by Mr. Agassiz at Pasagua, about seven or eight hundred miles further south on the coast, offers the opportunity of comparing the prehistoric arts of the people of the two locations.

The collection made at Pasagua is in several respects different from that made at Ancon. It is worthy of note that of the five crania obtained at Pasagua one has been distorted by circular pressure, giving to it the pyramidal form of some of the crania from the vicinity of Lake Titicaca, while at least three of the others are of a natural form and not at all like the broad depressed skulls from Ancon. Several of the long bones and other parts of human skeletons were obtained at Pasagua, and a remarkable collection of human hair was made. This collection of hair shows not only the peculiar modes of braiding, but also the fact that hair other than that belonging naturally to the head was worn to a great extent in the form of "switches," and that even these ancient people were familiar with the use of the "rats" of the modern hair-dressers. Among the other articles of special interest, obtained at Pasagua, may be mentioned fragments of bows, a stone sinker still attached to the line, a hair comb, a head-dress of feathers, several large dishes and a cup of basket work, a number of articles of clothing, fishing nets, etc.; also a few specimens of pottery of a different character from that obtained at Ancon.

As a third lot, in this valuable collection, may be mentioned a series of about thirty jars and vases of black clay obtained at Pacasmayo. These vessels are in several instances highly ornamented with fret work, and many have the human form, or that of monkeys and other animals, moulded upon them. A small idol made of black stone was also obtained at this place.

From the Island of Titicaca and from the ancient ruins of Tiahuanaco a very important series of articles of pottery was obtained. Many of the jars are of remarkable size and finish, and others are of very graceful forms and peculiar designs, entirely unlike those from the coast. The peculiar character of this Titicaca pottery, both in material and design, is unlike that from other parts of Peru of which we have examples, and one is constantly reminded of Etruscan vessels when examining the articles. This pottery, the various sculptures, the mode of burial, and the peculiar cranial forms of the Titicaca region, certainly indicate a great difference between the ancient people of this region and those of the coast at Ancon and Chancay. A very interesting carving, on a slab of red sandstone taken from one of the burial towers, is important in this connection. The carving represents the profile of a human head with the left arm and leg, while the

connecting parts of the neck and body are not represented. On a very delicate and beautiful tumbler of red pottery, obtained at Tiahuanaco, there is a front view of the human face, in relief, and over it several painted heads represented with the same sharp profile seen on the slab of sandstone.

Several crania, artificially shaped, and a few of natural form, were obtained from burial towers and cliff tombs in the vicinity of Lake Titicaca, and from the same tombs a number of articles were taken, including a bone needle with a loop of twine through the eye, a mat of basket work, fragment of cloth, and a few vases of peculiar form and ornamentation. Two perfect mummies with the greatly elongated heads were also obtained from near Tiahuanaco.

Small lots of specimens were procured from a number of other localities, including some from ancient shellheaps. A very interesting collection of flints and arrowheads was made at Tilibiche, Pasagua, and Pampa de Calca. A beautiful little arrowhead was picked up by Mr. Garman in the "Garden of the Incas," on the Island of Titicaca. These arrowheads are of special interest when taken in connection with the fragments of bows found in the graves at Pasagua, as the bow and arrow are not used by the present Indians of Peru. A round mass of hematite with a groove about it was found by Mr. Garman on the surface near Juli.

Besides making the large collection of ancient articles which I have thus briefly mentioned, Mr. Agassiz gave much attention to the manner of life of the present Indians, and secured for the Museum an extensive series of clothing, pottery, and other domestic articles, ropes, mule bridles, whips, slings, musical instruments, etc., etc. We have thus the means of making direct comparisons between similar articles belonging to the past and the present time.

In the very imperfect summary I have given of this valuable collection, I have not intended to give more than a general outline of its character, as a detailed description of the articles, illustrated by a number of cuts, in accordance with your vote at a previous meeting, will be printed as an appendix to this report, or as a separate paper, as you may direct. For this purpose Mr. Agassiz has furnished a general account of his archæological researches during his journey, which will add materially to the value of the description of the articles.

As is to be expected with such collections, a very large number

of the vessels of clay were broken in transportation, and ever since the receipt of the collection at the Museum we have been almost constantly at work restoring the articles. In this very important labor I have been under continued obligation to Mr. Carr for the care and patience he has shown in the restoration of the broken vessels. To Mr. Jackson's skill in this work I am also greatly indebted. Indeed, if it had not been for the assistance thus received it would have been impossible to properly classify and catalogue the collection for several months.

Next in size to the collection presented by Mr. Agassiz is that very recently received from the Smithsonian Institution, as the first instalment of the specimens which the Museum is to receive from the explorations on the coast of California, made, under the direction of Prof. Baird, by Mr. Schumacher, at the joint expense of this Museum and the Smithsonian Institution. The portion now received consists of one hundred human crania, a number of stone mortars and pots of various sizes, cooking pots of a coarse steatite, a small pot or cup of serpentine, which had been mended by drilling holes and joining the parts with asphaltum, many stone pestles, two of which are of large size, several large "spindle whorls" made of stone, ornaments made of shell, beads of shell, a small wooden dish, of the form of a boat, and a few other articles of native work. There are also two iron implements and many glass beads, showing that the burial places were used after contact with Europeans. These burial places, located on the main land near Santa Barbara, and on the islands off that coast, have been very extensively explored under the direction of the Smithsonian Institution, and by the party acting under Lt. Wheeler of the U. S. Engineers, in charge of the U. S. explorations and surveys west of the 100th meridian. All the specimens thus collected have been placed in my hands for examination and report to Lt. Wheeler.

A very important collection has been received from Dr. C. C. Parry, who made special explorations in Southern Utah for the benefit of the Museum. Dr. Parry opened an ancient mound, on the St. Clara River, which proved of great interest, as it contained several large vessels, a beautiful ladle, and many fragments of pottery of the peculiar character of that found in the ancient Pueblos of Colorado and New Mexico. One of the jars, containing what is believed to be the ashes of a human body, was covered

by another jar and is interesting as indicating cremation by the ancient people of Utah. A number of stone implements from Southern Utah and a peculiar pipe were also received from Dr. Parry.

To Dr. C. C. Abbott, of Trenton, New Jersey, the Museum is indebted for a large series of stone implements collected near Trenton. Among these are numerous rude forms obtained from the gravel bed at a depth of from three to seven feet from the surface. These implements from the gravel Dr. Abbott believes to be of palæolithic age, and made by a race inhabiting the country before the present Indians reached the Atlantic coast.

In relation to special explorations made under the direction of the Museum, I have to report the safe receipt of several boxes containing the results of the exploration of a few mounds in the Ohio valley, by Prof. E. B. Andrews who is still engaged in explorations for the Museum. This collection will be specially described in connection with the field notes and drawings furnished by Prof. Andrews, and I will here simply call attention to the fact that several of the mounds opened gave conclusive evidence of their having been erected over the burnt remains of human bodies. Several hundred copper beads, a peculiar copper implement, a tube of clay, and several stone implements were obtained from the mounds.

During the absence of Mr. Carr in the summer, when he was attached to the Kentucky Geological Survey, he had an opportunity to make an excavation of a mound in Kentucky, and to examine several caves near the Cumberland Gap. He also obtained many stone implements at various places in Kentucky, Virginia and Tennessee. A portion of these specimens are for the present deposited in the Museum by the Kentucky Geological Survey. Among the most interesting of the specimens collected by Mr. Carr may be mentioned a fragment of painted pottery from the mound, and a pair of very remarkable human tibiae obtained from a cave in Lee Co., Virginia. Should a careful study prove the peculiarities of these tibiae not due to disease, their immense size, curvature, rounding of the angles and lateral flattening, will show them to be the most remarkable tibiae yet recorded.

I have already alluded to the preparation of several special accounts of collections received during the year, and I beg to call your attention to the importance of considering the subject of a

different mode of publishing such accounts than that heretofore adopted. By printing these special papers in the form of Bulletins of the Museum, rather than in the Annual Reports, I think the Museum would be greatly benefited. The Bulletins could be issued from time to time as material offered, after receiving your sanction, and the Museum would thus have an important publication to exchange with those of societies and with journals of a similar nature, which would soon add much to the value of the library. As a matter of economy in publication I also think the issue of Bulletins would prove advisable, for while the Annual Reports would be limited to a general statement of the operations during the year, the publication of the lists of additions to the Museum and Library, with the Treasurer's report, and generally distributed as now, the free distribution of the Bulletin could be very limited, and their consequent sale would reduce the cost of their publication, while the first cost would not be more than if the same papers were issued as parts of the Annual Reports. It may also be added that the publication of descriptions of special collections, in the form proposed, would prove of great benefit in securing specimens for the Museum, as persons are far more ready to give their collections to an institution that will make early use of them, than to one which simply acknowledges their receipt and places the articles in its cases. Should the plan of publication proposed be adopted, I suggest that it should be strictly limited to the description of articles received by the Museum. Since I have had the honor of holding the position of Curator of the Museum I have given much thought to the matter of publication confined to proper limits, and I believe its importance to be so great that I beg for it your consideration at this time, as the following papers are now in preparation. 1st. The description of the Peruvian collection received from Mr. Agassiz. 2d. The description of the articles from the mounds in Ohio, with Prof. Andrews' field notes. 3d. An account of the very important collection from the mound in Utah by Dr. Parry. 4th. The description of the remarkable tibiae collected by Mr. Carr:

During the year there have been a few additions to the limited library of the Museum, and we may hope that as it becomes known that the formation of a library is one of the objects of the trust, authors will send copies of their papers on anthropological subjects, either as donations or in exchange for the publications of

the Museum. A list of the books received since the last acknowledgements, in the report of 1872, is herewith submitted.

In accordance with your request at the last meeting of the board, I also submit a list of such works as are required for reference in the arrangement and study of the articles in the Museum. In answer to the question asked at the last meeting I append a statement regarding the publication of the several Annual Reports.

I have in conclusion, to report that a few specimens have been lent to Mr. Harrison of the U. S. Coast Survey, for illustration in a paper he is preparing on the archæology of certain portions of the Gulf coast, and that a few specimens from Kentucky have been loaned for illustration in the Report by Mr. Carr to Prof. Shaler, the director of the Kentucky State Survey.

Prof. Baird, as one of the commissioners of the Centennial Exhibition, has applied for a number of specimens in the Museum for Exhibition in connection with the collection illustrating the Archæology of North America. The request of Prof. Baird having been granted at a former meeting of the Board of Trustees, the specimens will be carefully packed and forwarded to Washington during the present month.

An account of the additions to the Museum during the past year is herewith submitted.

F. W. PUTNAM,
Curator of the Museum.

CAMBRIDGE, MASS., January 19, 1876.

ADDITIONS TO THE MUSEUM, 1875.

8246-8247. Rude stone implements and fragments of soapstone pots, from near Christiana, Lancaster Co., Penn.—Presented by Mr. S. P. SHARPLES. These rude implements are, with little doubt, believed to have been used by Indians of a comparatively recent time for the purpose of shaping the blocks of soapstone into dishes and pots, and are interesting in showing the use of very rude implements, for certain purposes, by a race quite far advanced in the stone age.

8248-8259. Seventeen photographs of skulls from Florida and of various archæological specimens from several localities.—Presented by Mr. A. M. HARRISON, U. S. Coast Survey.

8260. A mummy from a cave in the Aleutian Islands.—Presented by the ALASKA COMMERCIAL Co., and received through the SMITHSONIAN INSTITUTION.

8261. Stone chips from Magdalena Island, Patagonia.—Collected by Count L. F. POURTALES while on the Hassler Expedition, and presented by the MUSEUM OF COMPARATIVE ZOOLOGY.

8262-8264. Stone chips, shells and bones collected from refuse heaps about holes, dug probably for shelter, on Elizabeth Island, Patagonia, by Count POURTALES, and presented with the last mentioned specimens.

8265. Mummy of child with its cloth wrappings and several articles enclosed with the body, consisting of spindles and feathers. From Peru.—Collected by Dr. C. F. WINSLOW, and presented by the BOSTON SOCIETY OF NATURAL HISTORY.

8266-8268. Hindoo manuscript on palm leaf; shell ornament, probably from the Sandwich Islands; hat from Norway.—Presented by the BOSTON SOCIETY OF NATURAL HISTORY.

8269-8281. Photographs of pipes, and cloth covered copper axes, obtained from mounds near Davenport, Iowa.—Presented by the DAVENPORT ACADEMY OF SCIENCE.

8282. Photographs of a "grindstone" found at Ironton, Ohio.—Presented by Mr. H. H. HILL, of Cincinnati.

8283-8285. Crania of an Ashanti and of two negroes from the collection of the late Professor WYMAN.—Presented by the BOSTON SOCIETY OF NATURAL HISTORY.

8286. Cranium of a Hindoo—From HARVARD COLLEGE COLLECTION.

8287-8289. Crania from San MIGUELS, Cal.—Presented by the SMITHSONIAN INSTITUTION.

8290. Baskets made of sweet grass by the Indians of Lake Superior.—Received through Mr. HENRY GILLMAN of Detroit.

8291-8293. Copper axe, stone implement and fragment of pottery.—From HARVARD COLLEGE COLLECTION.

8294-8297. Japanese pipe; twenty-four arrowheads found in Concord, Mass.—Presented by Mr. A. TOLMAN of Concord.

8298-8299. Ten arrowheads found in Concord, Mass.—Presented by Mr. STACY TOLMAN of Concord.

8300. Cast of a small stone image, representing the human form, found in Kentucky.—Presented by Mr. H. H. HILL of Cincinnati.

8301-8325. A collection of stone implements, fragments of pottery and other articles from various places in Italy.—Collected by Dr. T. CERIO of Naples, and received in exchange.

8326-8336. Two remarkable human tibiae from Ely's Cave, Lee Co., Va.; diseased tibiae from a cave in Lee Co., Va.; cloth bag from Salt Cave, Ky.; human crania and bones from caves in Virginia and Tennessee; portions of a human skeleton and a fragment of painted pottery from a mound near Cumberland Gap.—Collected by Mr. L. CARR and deposited by the KENTUCKY GEOLOGICAL SURVEY.

8337. A stone tube found three feet below the surface in Groveland, Livingston Co., N. Y.—Presented by Mr. WM. D. FITZHUGH of Groveland, through Hon. ROBERT C. WINTHROP.

8338. Fragments of old Roman colored glass from Chalcis.—Presented by Arch-deacon TROLLOPE, through Hon. ROBERT C. WINTHROP.

8339-8340. "Boomerang," and pair of sandals made of braided grass. From the Digenos Indians of Southern California.—Collected and presented by Dr. E. PALMER.

8341-8379. A collection of articles from a burial mound in Southern Utah, comprising a jar containing ashes, over which another vessel was inverted; a pitcher-shaped jar; a red jar with a small opening; a beautifully made vessel of very thin clay, red with black lines of a peculiar pattern; two bowl-shaped vessels and a perfect ladle of the peculiar white and black pottery so characteristic of the ancient Pueblos; a number of fragments of tile-like pottery, and a bone implement. Also forty-seven arrow-

heads and other stone implements, and a pipe from Southern Utah.—Collected and presented by Dr. C. C. PARRY.

8380-8460. One hundred and sixty-eight articles obtained from the Indians of Peru and Bolivia. These articles consist of clothing, bags, nets, musical instruments, ropes, bridles, whips, spindles, distaffs, thread, samples of wool, drinking tubes, etc., etc., and a collection of pottery ware of various shapes and sizes. The last showing that in the ceramic art, as well as in weaving, the present Indians are far behind the prehistoric race of the country.—Collected and presented by Mr. ALEXANDER AGASSIZ of Cambridge.

8461-8918. A very large collection from ancient burial places in Peru and a number of stone implements from the surface. A short account of this collection is given on a preceding page, and it will be further described. It was made at Ancon, Chancay, Pasagua, Pacasmayo, Arica, Callao, and Tilibiche, on the coast of Peru; at Coquimbo, Chili; Copacabana, Moho, Conima, Juli, Vilquechico, Tiahuanaco, and Guaichi, localities about Lake Titicaca in Peru and Bolivia; and on the Island of Titicaca; by Mr. A. AGASSIZ and Mr. S. W. GARMAN.—Presented by Mr. ALEXANDER AGASSIZ.

8919-8931. A collection of several ancient Mexican, Peruvian and Etruscan vases, a Turkish pipe, Roman lamp, ancient Mexican whistle, and a number of other articles from various localities.—By PURCHASE.

8932-8934. Cork models of the Temples of Neptune and of Ceres, and of the Basilica, at Pæstum.—Presented by Prof. A. M. MAYER of Hoboken, N. J.

8935-8944. A number of stone implements from North America; and fragments of mosaic and bas-relief from Italy.—Presented by Prof. CHAS. E. MUNROE, U. S. Naval Academy.

8945. Fragment of a dress of leather with copper beads. From Schoolhouse Mound, Athens, Ohio.—Presented by Mr. PETER MARTIN of Athens.

8946-8993. Arrowheads and flints from a Hill Mound in Perry Co., Ohio; hatchet of hematite from Wolf Plain, Athens Co., Ohio; spear and arrowheads from the surface Muskingham Co., Ohio; stone implements, fragments of mica, bones of animals and other articles from Beard's Mound, Athens, Ohio; burnt human bones from Jewett Hill Mound, Dover, Ohio; burnt human bones

from a mound in Pleasant, Ohio; burnt human bones, and portions of a cranium from Courtney's Mound, Dover, Ohio; burnt human bones, charcoal, ashes, etc., and a tube of clay from W. Conant's Mound, Dover, Ohio; burnt human bones, and clay, charcoal, copper beads, shell beads and a copper implement, from G. Conant's Mound, Dover, Ohio.—From explorations by Prof. E. B. ANDREWS, conducted for the Museum.

8994-9033. A collection of stone implements and fragments of pottery from Trenton, New Jersey. This is an important collection from the surface and from the soil at various depths. It also contains a number of rude stone implements obtained from the gravel bed, at a depth of from three to seven feet from the surface, which are considered by Dr. Abbott to be true palæolithic implements.—Collected and presented by Dr. C. C. ABBOTT of Trenton, N. J.

9034-9083. A collection of stone implements and other articles from the surface and from graves in Kentucky, Virginia and Tennessee; a number of articles and human bones from a mound near Cumberland Gap; a collection of human bones from caves in Virginia and Tennessee.—Collected by Mr. LUCIEN CARR, and deposited by the KENTUCKY GEOLOGICAL SURVEY.

9084-9094. Several photographs of articles from mounds near Davenport, Iowa.—Presented by the DAVENPORT ACADEMY OF SCIENCE.

9095. Photograph of a quadruple jar from a mound in Illinois.—Presented by Dr. H. C. YARROW, U. S. A.

9096-9103. Sterographs of a number of skulls, four views of each, comprising a cranium of a Pottawatomie Chief from Wisconsin, and seven crania from a tumulus near Ft. Wadsworth, Dakota Territory. These views were taken from crania in the Army Medical Museum, by order of the Surgeon General, under the direction of Dr. Otis, U. S. A.—Presented by the ARMY MEDICAL MUSEUM.

9104. Stone hammer from Minnesota Mine, Lake Superior.—Presented by Mr. J. O. WETHERBEE of Boston.

9105. Stone pestle from New England.—Presented by the MUSEUM OF COMPARATIVE ZOOLOGY.

9106. Stone sinker from Lynnfield, Mass.—Presented by Miss E. H. CLARK of Lynnfield.

9107-9384. A collection of one hundred human crania and a number of stone mortars, cooking pots, club stones, pestles,

shell ornaments, textile fabrics, and other articles of native make; two iron implements and a number of glass beads of European make, from the burial places at Dos Pueblos, and on the Islands of San Miguel, Catalina, Santa Cruz and San Nicholas, California. —Received from the explorations of Mr. P. SCHUMACHER, conducted in connection with the SMITHSONIAN INSTITUTION.

9385. Sterograph of ruins in the Mancos Cañon, Colorado. Taken by Mr. Jackson of the Hayden Survey.—Presented by Mr. E. INGERSOL.

9386. Photograph of the "Dolman Boulder," at North Salem, Westchester Co., N. Y.—Presented by Hon. ROBERT C. WINTHROP.

9387-9392. Six ornaments from ancient graves in Chiriqui. One of these represents a large frog, and agrees with the following description by Bollaert in his account of the gold ornaments of Chiriqui. "A frog with large protruding eyes, the eye-balls being enclosed in the sockets like the balls in sleigh bells; this is alloyed with copper." In a foot note, Mr. Bollaert says "This may be an alloy, or a natural mixture, and was known under the name of *guanin*, its specific gravity is 11.55." To the eye this ornament looks as if made of copper and then gold-plated. The five others are of solid gold; two of which are conventional representations of the frog with a peculiar ornamentation extending on both sides from the point of the jaws, as if intended to show something held in the mouth of the frog. One of these is exactly like the figure given by Bollaert in his *Antiquities of South America*, etc., on the plate facing page 32. Another of these gold ornaments represents a bird in a similar conventional manner. The fourth is cast in the form of a deer with two tails, and the fifth is a peculiar combination of the human form with that of a lizard. All of these articles, judging from their shape and the loops on their lower surfaces, were probably attached to garments.—Presented by Mr. ALEXANDER AGASSIZ.

9393-9408. The specimens catalogued under these numbers form part of the collection made in 1872 by Prof. WYMAN, and arranged by him for the purpose of showing the existence of cannibalism among the ancient people who formed the shellheaps of the St. John's River, Florida. The specimens are all from Osceola and Bartram's Mounds, and from near Blue Springs, and are described in Prof. Wyman's memoir on the Fresh Water Shellheaps of the St. John's River.

ADDITIONS TO THE LIBRARY, 1872-1875.

From the author. Prehistoric Man—Darwinism and Deity—The Mound Builders; by M. F. Force, Cincinnati, 1873. 8vo.

From Prof. Asa Gray. Systems of Consanguinity and Affinity of the Human Family; by Lewis H. Morgan, Washington, 1871. 4to. Australian Kinship; by Lewis H. Morgan. 8vo. Giant's Caldrons; by S. A. Sexe, Christiana, 1874. 4to. On the Osteology and Peculiarities of the Tasmanians—A Race of Man recently become extinct; by J. Barnard Davis, Haarlem, 1874. 4to.

From the Academy of Science of St. Louis. Transactions St. Louis Academy of Science. Vols. I, II, and two Nos. of Vol. III. St. Louis, 1857-1875. 8vo.

From F. W. Putnam. The American Naturalist. Nine vols. 8vo. Salem, 1867-1875. Stone Age of New Jersey; by C. C. Abbott. Salem, 1872. 8vo.

From the Department of the Interior. United States Survey of the Territories; F. V. Hayden, U. S. Geologist in charge. Birds of the Northwest; a Hand-book of the Ornithology of the Region drained by the Missouri River and its Tributaries; by Elliott Coues. Washington, 1874. 8vo. Contributions to the Extinct Vertebrate Fauna of the Western Territories; by Joseph Leidy. Washington, 1873. 4to. Synopsis of the Acrididæ of North America; by Cyrus Thomas. Washington, 1873. 4to. Cretaceous Flora; by L. Lesquereux. Washington, 1874. 4to. Synopsis of the Flora of Colorado; by Thomas C. Porter and John M. Coulter. Washington, 1874. 8vo. List of Elevations principally in that portion of the United States west of the Mississippi River. Collated and arranged by Henry Gannett. Washington, 1875. 8vo. Meteorological Observations made during the year 1873 and the early part of the year 1874 in Colorado and Montana Territories. Prepared for publication by George B. Chittenden. Washington, 1874. 8vo. Bulletins of the United States Geological and Geographical Survey of the Territories. Nos. 1, 2, 3, 4 of the 2nd Series. Washington, 1875. 8vo. Hayden's Reports for 1869-70-71-72-73. Five vols., 8vo.

From the Smithsonian Institution. Smithsonian Reports for the years 1865-66-67-68-69-70-71-72-73. Nine vols., 8vo.

Washington. Vols. 3, 4, 5, 7, 8, 9, 10, 11, 12 of the Smithsonian Miscellaneous Collections. Nine vols., 8vo. Also on deposit, vols. 2 to 19 inclusive of the Smithsonian Contributions to Knowledge. 18 vols., 4to.

From the Bureau of Education. Circulars of Information of the Bureau of Education. Nos. 1 and 2 for 1873, and No. 2 for 1874. Nos. 1, 2, 3, 4, 5, 6 for 1875. 8vo.

From Hon. Robert C. Winthrop. Cabinet D'Antiquités Americaines a Copenhague; par C. C. Rafn. Copenhague, 1858. 8vo. Mémoires de la Société Royale des Antiquités du Nord. Nouvelle Series, 1870, 1871, 1872. 8vo. Annales de l'Académie D'Archéologie de Belgique. Second series, tome III. 1re livraison Inscriptions Runiques du Slesvig Meridional interpretées; by C. C. Rafn. Copenhague, 1861. 8vo. Über den Bau der Riesenbetten der Vorzeit von seiner Majestät König Frederik dem Siebenten zu Dänemark. 8vo. Circular of Congrès International D'Anthropologie et D'Archéologie préhistorique. Stockholm, 1873. Fossil Impressions on the Sandstone Rocks of Connecticut River; by Jno. C. Warren, Boston, 1854. 8vo. Origin of the so-called Lignilites or Epsomites; by O. C. Marsh. 8vo. Om Bygningsmaaden af Oldtidens Jættestuer af Hans Majestæt Konog Frederik den Syvende til Danmark. 8vo. Classification des diverses Périodes de l'Age de Pierre; by Gabriel de Mortillet. Brussels, 1873. 8vo. Notes sur le Précurseur de l'Homme; par G. de Mortillet and Abel Hovelacque. Paris, 1873. 8vo. Géologie du Tunnel de Frejus ou Percée du Mont Cénis; par Gabriel de Mortillet. Annecy, 1872. 8vo. Démonstration de l'Emmanchure des Instruments des trois Époques de l'Age de la Pierre; par M. Reboux. Paris, 1873. 8vo. Sur les Instruments des Sauvages de l'Océanie et leur Analogie avec les Instruments de la Période Quaternaire; par M. Reboux. Paris, 1874. 8vo. Bulletino del Vulcanismo Italiano. Redatto dal Michele Stefano de Rossi. Fascicolo I. Gennaio and Roma, 1874. 8vo. On the Analogous Forms of Implements among Early and Primitive Races; by Hodder M. Westropp. 8vo. Address to the Department of Anthropology of the British Association for the Advancement of Science, for 1872; by Lane Fox. 8vo. Aarboger for Nordisk Oldkyndighed og Historie udgivne af Det Kongelige Nordiske Oldskrift-selskab; parts 1, 2, 3, 4 of 1873 and

parts 1, 2, 3, 4 of 1874. 8vo. Programme de la Septieme Session du Congrès International d'Anthropologie et d'Archæologie pré-historiques, pour 1874. 4to.

From the author. Die Prähistorische Archäologie in Schleswig-Holstein; von Heinrich Handelsmann. Kiel, 1875. 8vo.

From the author. The Mammalia found at Windy Knoll; by W. Boyd Dawkins. 8vo.

From Prof. W. Boyd Dawkins. The Bone Caves in the neighborhood of Castleton, Derbyshire; by Rooke Pennington. 8vo.

From Prof. Augustus C. Merriam. Proceedings of the Seventh Annual Session of the American Philological Association held at Newport, R. I., July, 1875. 8vo.

From the Metropolitan Art Museum, New York City. Guide to the Cesnola Collection. 8vo. Cypriote Inscriptions; by Isaac H. Hall. 8vo. Hand Book of Pottery and Porcelain in the Metropolitan Art Museum. 8vo. Cypriote Inscriptions of the Di Cesnola Collection in the Metropolitan Art Museum of New York; by Isaac H. Hall. 8vo.

From the author. Results of Investigations of Indian Mounds in Mississippi; by James R. Gage. St. Louis, 1875. 8vo.

From the Minnesota Historical Society. Collections of the Minnesota Historical Society, being a Republication of the original parts issued in 1850-51-52-53-56. St. Paul, 1872. One vol., 8vo.

From Prof. E. T. Cox. Annual Reports of the Geological Survey of Indiana. 1870, 1871 and 1872, 1873, 1874. Four volumes. 8vo.

REPORT OF THE TREASURER.

*To the Trustees of the Peabody Museum of American Archaeology and
Ethnology in connection with Harvard University:*

The Treasurer respectfully presents his Ninth Annual Report in the abstract of accounts, and the cash account hereto annexed:—

The Collection Account is charged with

| | | |
|---|------------|-------------|
| 9 Massachusetts 5 per cent. Specie Coast Defence Notes, due July 1, 1883, each for \$5,000, numbered 46 to 54, registered, the gift of George Peabody, Esq. | | \$45,000 00 |
| Income from above Notes in currency | \$2,580 48 | |
| Income from Massachusetts 5 per cent. Specie Notes of Professor Fund in currency | 2,580 48 | |
| Income from Investments by Treasurer | 621 01 | |
| | <hr/> | 5,781 97 |
| Note of Worcester & Nashua R. R. Co., dated Jan. 6, 1875, Interest 7 per cent. | | 9,583 38 |
| Balance of payment in London, Dec. 1, 1871, to be used by Hon. R. C. Winthrop, £7, 1s. | | 39 70 |
| | | <hr/> <hr/> |
| | | \$60,805 05 |

And Collection Account is credited with

| | | |
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| 9 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000 | | \$45,000 00 |
| Worcester & Nashua R. R. Co. Note, July 5, 1875, Interest 6 per cent. | \$8,465 28 | |
| Balance of Worcester & Nashua R. R. Co. Note, July 9, 1875, Interest 6 per cent. | 1,300 00 | |
| Note of Worcester Gas Light Co., Jan. 4, 1876, Interest 6 per cent. | 1,300 00 | |
| Note of Worcester Gas Light Co., Jan. 15, 1876, Interest 6 per cent. | 600 00 | |
| | <hr/> | 11,665 28 |
| Payment of rent to Harvard College | 750 00 | |
| Payment of rent of Safe Deposit | 30 00 | |
| Payment of printing Report and sundry printing | 236 86 | |
| Payment to F. W. Putnam, Esq., Salary as Curator | 1,000 00 | |
| Payment to F. W. Putnam, Curator, for Incidental Expenses | 209 59 | |
| Payment to F. W. Putnam, Curator, for Expenses of moving, Trays and Tin Boxes | 119 72 | |
| | <hr/> | 2,346 17 |
| Payment to Prof. S. F. Baird for Explorations in California with Smithsonian Institution | 1,000 00 | |
| Payment to Prof. E. B. Andrews for Excavations in Ohio | 200 00 | |
| Payment for Indian and Mexican antiquities | 185 65 | |
| | <hr/> | 1,385 65 |
| Payment to Treasurer balance due him on last account | | 23 37 |
| Balance in hands of Treasurer carried to New Account | | 384 58 |
| | | <hr/> <hr/> |
| | | \$60,805 05 |

The Professor Fund consists of

| | |
|--|-------------|
| 9 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000, numbered 55 to 63 registered, the gift of George Peabody, Esq.; the income is appropriated to the Collection Fund, until the Professorship shall be filled | \$45,000 00 |
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The Building Account is charged with

| | | |
|---|------------|---------------------|
| 12 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000, numbered 64 to 75 registered, the gift of George Peabody, Esq. | | \$60,000 00 |
| Income from above Notes in currency | \$3,440 63 | |
| Income from Investments by Treasurer | 2,534 25 | |
| | | 5,974 88 |
| Balance due to Treasurer carried to New Account | | 71 09 |
| 9 Worcester Water Bonds, due June 1, 1877, Interest 6 per cent. | 4,500 00 | |
| 3 Worcester Sewer Bonds, due June 15, 1877, Interest 6 per cent. | 2,100 00 | |
| 6 Worcester & Nashua R. R. Co. Bonds, 5-10 years, Dec. 31, 1870, Interest 7 per cent. | 6,000 00 | |
| 7 Worcester & Nashua R. R. Co. Bonds, April 1, 1871, Interest 7 per cent. | 11,000 00 | |
| Worcester Note, Jan. 1, 1874, Interest 7 per cent. | 8,000 00 | |
| 40 Shares Philadelphia, Wilmington & Baltimore R. R. Stock, par \$2,000, cost | 2,192 63 | |
| Worcester & Nashua R. R. Co. Note, Jan. 6, 1875, Interest 7 per cent | 3,997 59 | |
| | | 37,790 23 |
| | | <u>\$103,836 19</u> |

And Building Account is credited with

| | | |
|--|------------|---------------------|
| 12 Massachusetts 5 per cent. Specie Notes, as above, each for \$5,000 | | \$60,000 00 |
| 9 Worcester Water Bonds, due June 1, 1877, Interest 6 per cent. | \$4,500 00 | |
| 3 Worcester Sewer Bonds, due June 15, 1877, Interest 6 per cent. | 2,100 00 | |
| 7 Worcester & Nashua R. R. Co. Bonds, dated April 1, 1873, Interest 7 per cent. | 11,000 00 | |
| 40 Shares Philadelphia, Wilmington & Baltimore R. R. Stock . . | 2,192 63 | |
| 42 Shares State Bank Stock | 5,040 00 | |
| 5 Bonds Boston, Barre & Gardner R. R. Corporation, par \$5,000, Interest 7 per cent. | 4,675 00 | |
| Worcester & Nashua R. R. Co. Note, dated July 5, 1875, Interest 6 per cent. | 5,175 11 | |
| Worcester & Nashua R. R. Co. Note, dated Oct. 16, 1875, Interest 6 per cent. | 743 45 | |
| Worcester & Nashua R. R. Co. Note, dated Jan. 1, 1876, Interest 6 per cent. | 6,210 00 | |
| Worcester Gas Light Co. Note, dated Jan. 4, 1876, Interest 6 per cent. | 2,200 00 | |
| | | 43,836 19 |
| | | <u>\$103,836 19</u> |

The Investments of the

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|---|-------------|---------------------|
| Collection Fund, at cost, amount to | \$57,048 86 | |
| Professor Fund, at par, " " | 45,000 00 | |
| Building Fund, at cost, " " | 103,765 10 | |
| | | <u>\$205,814 96</u> |

STEPHEN SALISBURY, *Treasurer.*

Jan. 10, 1876.

Dr.

STEPHEN SALISBURY, *Treasurer of the Peabody Museum of American Archaeology and*

1875.

For Collection Fund.

| | | | | |
|-------|-----|---|------------|-------------|
| Feb. | 8. | To rec'd in part of Worcester & Nashua R. R. Co. Note of Jan. 4, 1875 | \$1,030 00 | |
| May | 10. | To rec'd in part of Worcester & Nashua R. R. Co. Note of Jan. 4, 1875 | 486 86 | |
| May | 26. | To rec'd in part of Worcester & Nashua R. R. Co. Note of Jan. 4, 1875 | 315 61 | |
| July | 5. | To rec'd balance of Worcester & Nashua R. R. Co. Note of Jan. 4, 1875 | 8,150 91 | |
| | | | | \$9,983 38 |
| July | 5. | To rec'd Interest on above Note at 7 per cent. | | 314 37 |
| July | 2. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st inst., Gold | 1,125 00 | |
| July | 2. | To rec'd for sale of above \$1,125, Gold, at 17 per cent. | 191 25 | |
| July | 2. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes of Professor Fund to 1st inst., Gold | 1,125 00 | |
| July | 2. | To rec'd for sale of above \$1,125, Gold, at 17 per cent. | 191 25 | |
| | | | | 2,632 50 |
| July | 14. | To rec'd balance of payment Dec. 1, 1871, to be used by Hon. R. C. Winthrop in London, £7, 1s. | | 89 70 |
| Oct. | 16. | To rec'd in part of Worcester & Nashua R. R. Co. Note of July 9 | | 900 00 |
| Oct. | 28. | To rec'd of Dr. C. C. Parry repayment of \$50 paid Sept. 11 | | 50 00 |
| 1876. | | | | |
| Jan. | 4. | To rec'd 6 Months' Interest to 5th inst. on Worcester & Nashua R. R. Co. Note of July 5, 1875 | 253 96 | |
| Jan. | 4. | To rec'd Interest to 5th inst. on balance of Worcester & Nashua R. R. Co. Note of July 9, 1875 | 52 68 | |
| | | | | 306 64 |
| Jan. | 5. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st inst., Gold | 1,125 00 | |
| Jan. | 5. | To rec'd for sale of above \$1,125, Gold, at 12½ per cent. | 139 23 | |
| Jan. | 5. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes of Professor Fund to 1st inst., Gold | 1,125 00 | |
| Jan. | 5. | To rec'd for sale of above \$1,125, Gold, at 12½ per cent. | 139 23 | |
| | | | | 2,528 46 |
| | | | | <hr/> |
| | | | | \$16,755 05 |

Cr.

Ethnology in connection with Harvard University, in Annual Cash Account, Jan. 19, 1876

1875.

| | | | | |
|-------|-----|---|----------|----------|
| Jan. | 12. | By balance of account due to Treasurer | | \$23 37 |
| Jan. | 30. | By paid rent of Safe Deposit to Jan. 1. 1877 | | 30 00 |
| Feb. | 2. | By paid Harvard College one year's rent of Rooms | | 750 00 |
| Feb. | 5. | By paid Prof. S. F. Baird for Explorations in California with Smithsonian Institution | \$250 00 | |
| May | 1. | By paid Prof. S. F. Baird balance of Appropriation for above explorations | 250 00 | |
| | | | | 500 00 |
| May | 8. | By paid for printing Report \$226.11; Sundry printing \$10.75 | | 236 86 |
| May | 26. | By paid F. W. Putnam, Curator, Salary to April 1 | 250 00 | |
| May | 26. | By paid F. W. Putnam, Curator, for Explorations and Collections in Kentucky | 17 50 | |
| May | 26. | By paid F. W. Putnam, Curator, Incidental expenses | 48 11 | |
| | | | | 315 61 |
| July | 5. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 6 per cent. S. A. | | 8,485 28 |
| July | 9. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 6 per cent. S. A. | | 2,200 00 |
| July | 9. | By paid F. W. Putnam, Curator, Salary for 3 Months to 1st inst. | 250 00 | |
| July | 9. | By paid F. W. Putnam, Curator, Incidental expenses | 7 04 | |
| | | | | 257 04 |
| Sept. | 11. | By paid Dr. C. C. Parry to buy Indian Antiquities in Utah | | 50 00 |
| Oct. | 11. | By paid F. W. Putnam, Curator, Salary for 3 Months to 1st inst. | 250 00 | |
| Oct. | 11. | By paid F. W. Putnam, Curator, Expenses of Moving | 54 37 | |
| Oct. | 11. | By paid F. W. Putnam, Curator, Incidental Expenses | 80 10 | |
| | | | | 384 47 |
| Oct. | 15. | By paid Prof. S. F. Baird to make Collections in Oregon and California | | 500 00 |
| Oct. | 28. | By paid Dr. C. C. Parry for Indian Articles from Utah, \$18, P. O. order 15 cents | | 18 15 |
| Dec. | 1. | By paid Alfred Mayer for large Vases and other Articles from Mexico, etc. | | 150 00 |
| Dec. | 1. | By paid Prof. E. B. Andrews to make Excavations in Ohio | 100 00 | |
| Dec. | 14. | By paid Prof. E. B. Andrews to make Excavations in Ohio | 100 00 | |
| | | | | 200 00 |

1876.

| | | | | |
|------|-----|--|--------|-------------|
| Jan. | 4. | By paid for Worcester Gas Light Co. Note, on demand, Interest 6 per cent. | | 1,300 00 |
| Jan. | 15. | By paid F. W. Putnam, Curator, Salary for 3 Months to 1st inst. | 250 00 | |
| Jan. | 15. | By paid F. W. Putnam, Curator, for Trays and Boxes | 65 35 | |
| Jan. | 15. | By paid F. W. Putnam, Curator, Incidental Expenses | 74 34 | |
| | | | | 389 69 |
| Jan. | 15. | By paid for Worcester Gas Light Co. Note, on demand, Interest 6 per cent | | 600 00 |
| Jan. | 19. | By balance carried to New Account | | 384 58 |
| | | | | \$16,755 05 |

Dr.

For Building Fund.

1875.

| | | | | |
|-------|-----|---|------------|-----------------|
| April | 1. | To rec'd 6 Months' Interest on Worcester & Nashua R. R. Co. Bonds | | \$385 00 |
| July | 2. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st, Gold | \$1,500 00 | |
| July | 2. | To rec'd for sale of above \$1,500, Gold, at 17 per cent. | 255 00 | |
| | | | | <u>1,755 00</u> |
| July | 3. | To rec'd 6 Months' Interest on Worcester Water Bonds to 1st of June | 135 00 | |
| July | 3. | To rec'd 6 Months' Interest on Worcester Sewer Bonds to 15th of June | 63 00 | |
| | | | | <u>198 00</u> |
| July | 3. | To rec'd for Worcester Note, Jan. 1, 1874, Principal \$8,000, Interest 7 per cent. to 1st, \$280 | | 8,280 00 |
| July | 5. | To rec'd 6 Months' Interest on Worcester & Nashua R. R. Co. Bonds | | 210 00 |
| July | 5. | To rec'd for Worcester & Nashua R. R. Co. Note of Jan. 6, Principal \$3,907.53, Interest 7 per cent. \$139.13 | | 4,136 72 |
| July | 5. | To rec'd for Worcester & Nashua R. R. Co. Note of Apr. 1, Principal \$385, Interest 6 per cent. \$5.89 | | 390 89 |
| July | 14. | To rec'd Dividend on Philadelphia & Wilmington R. R. Co. Stock 4 per cent. | | 80 00 |
| Oct. | 2. | To rec'd 6 Months' Interest on Worcester & Nashua R. R. Co. Bonds | | 385 00 |
| Oct. | 2. | To rec'd Interest accrued July 17 on Boston, Barre & Gardner R. R. Co. Bonds | 103 05 | |
| Oct. | 2. | To rec'd balance of above Interest to Oct. 1 | 71 95 | |
| | | | | <u>175 00</u> |
| Oct. | 4. | To rec'd Dividend on State National Bank Stock, 3 per cent. | | 126 00 |
| Dec. | 21. | To rec'd 6 Months' Interest on Worcester Water Bonds to 1st | 135 00 | |
| Dec. | 21. | To rec'd 6 Months' Interest on Worcester Sewer Bonds to 1st | 63 00 | |
| | | | | <u>198 00</u> |

1876.

| | | | | |
|------|----|---|----------|--------------------|
| Jan. | 1. | To rec'd for Worcester & Nashua R. R. Co. Bonds of Dec. 31, 1870, Principal \$6,000, 7 per cent. Interest \$210 | | 6,210 00 |
| Jan. | 4. | To rec'd 6 Months' Interest on Worcester & Nashua R. R. Co. Note dated July 5, 1875, to 5th inst., 6 per cent. | | 155 25 |
| Jan. | 4. | To rec'd Interest to 5th inst. on Worcester & Nashua R. R. Co. Note dated Oct. 16, 1875, at 6 per cent. | | 10 03 |
| Jan. | 5. | To rec'd 6 Months' Interest on Mass. 5 per cent. Notes to 1st inst., Gold | 1,500 00 | |
| Jan. | 5. | To rec'd for sale of above \$1,500 Gold at 12½ per cent. | 185 63 | |
| | | | | <u>1,685 63</u> |
| Jan. | 5. | To rec'd Dividend on Philadelphia & Wilmington R. R. Stock, 4 per cent. | | 80 00 |
| | | To balance due to Treasurer carried to New Account | | 71 09 |
| | | | | <u>\$24,531 61</u> |

Cr.

1875.

| | | | |
|-------|-----|--|------------|
| April | 1. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 6 per cent. | \$385 00 |
| July | 5. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 6 per cent. | 5,175 11 |
| July | 7. | By paid for 30 shares State National Bank at 20 per cent. advance | \$3,000 00 |
| July | 14. | By paid for 12 shares State National Bank at 20 per cent. advance | 1,440 00 |
| July | 17. | By paid for 5 Bonds Boston, Barre & Gardner R. R. Corporation, each \$1,000, due 20 years from April 4, 1873, Interest 7 per cent., \$5,000 at 93½ per cent. \$4,675 and accrued Interest \$103,05 | 4,778 05 |
| Oct. | 16. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 6 per cent. | 743 45 |
| 1876. | | | |
| Jan. | 1. | By paid for Worcester & Nashua R. R. Co. Note on demand, Interest 6 per cent. | 6,210 00 |
| Jan. | 4. | By paid for Worcester Gas Light Co. Note on demand, Interest 6 per cent. | 2,200 00 |

\$24,531 61

I certify that I have examined this account, and find the items to correspond with the vouchers, and to be correctly computed, and that the securities are in the Treasurer's possession.

S. F. HAVEN, Auditor.

LIST OF THE ANNUAL REPORTS.

| | | | | |
|----------------|---|---|--------------------------------|---------------------|
| First | Annual Report, rendered Jan. 5, 1868; published —, 1868. | | | 8vo, pp. 28. |
| Second | " | " | " Dec. 11, 1868; " —, 1869. | " " 23. |
| Third | " | " | " Jan. 8, 1870; " Dec., 1870. | " " 15. |
| Fourth | " | " | " Jan. 12, 1871; " May, 1871. | " " 27. |
| Fifth | " | " | " Jan. 11, 1872; " May, 1872. | " " 35. |
| Sixth | " | " | " Jan. 8, 1873; " May, 1873. | " " 27. |
| Seventh | " | " | " Jan. 15, 1874; " May, 1874. | " " 43. |
| Eighth | " | " | " Jan. 14, 1875; " Apr., 1875. | " " 61. |
| Ninth | " | " | " Jan. 19, 1876; " Apr., 1876. | " " 30. |

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